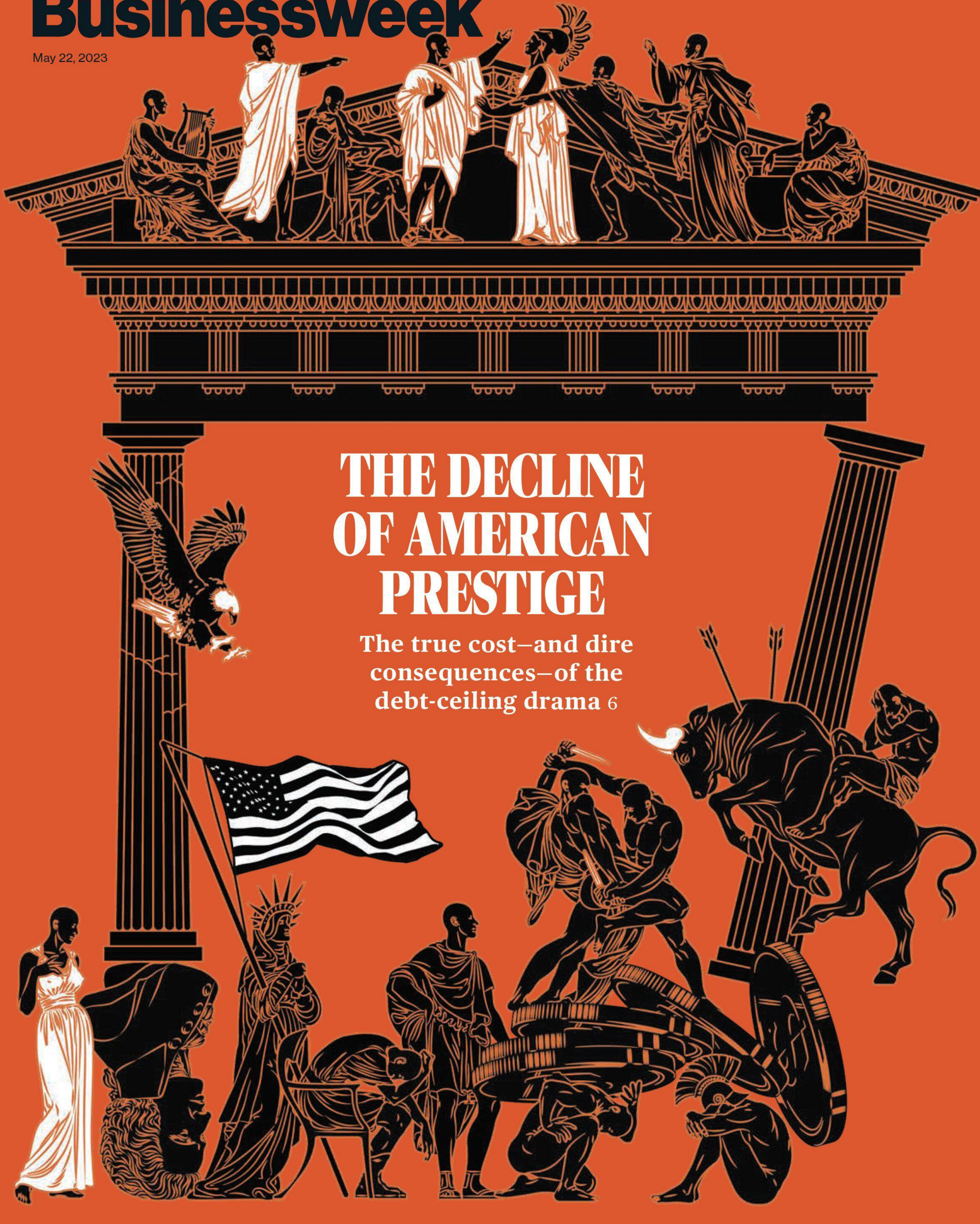
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May 22, 2023



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Bloomberg Businessweek

May 22, 2023



◀ Sweetgreen co-founders Jonathan Neman, Nicolas Jammet and Nathaniel Ru

PHOTOGRAPH BY EVAN JENKINS FOR BLOOMBERG BUSINESSWEEK

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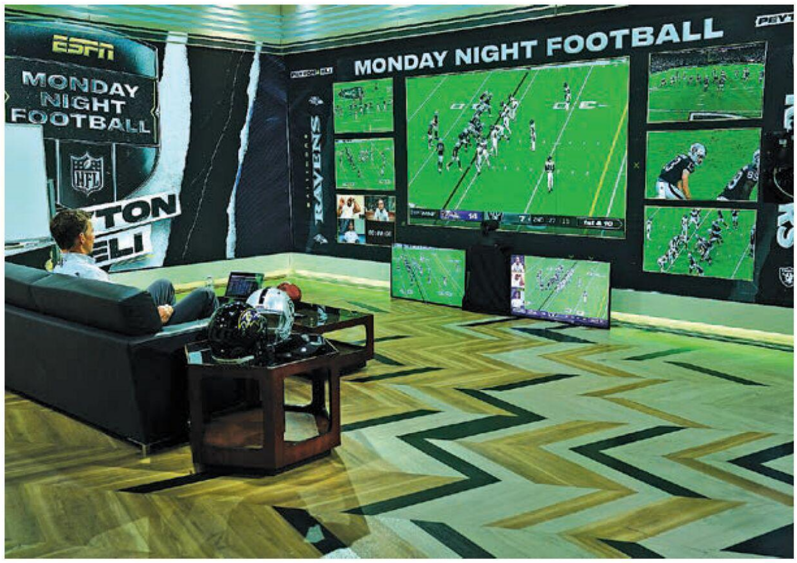
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CORRECTION

"Can AI Help Create New Drugs?" (Business, May 15) misstated that Exscientia Plc is developing an AI-assisted drug for obsessive-compulsive disorder. Its drug treats inflammation. ● "The Quiet Star in Ken Griffin's Market Empire" (Finance, May 15) misspelled the name of Citadel Securities' Fang Wu.

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■ COVER TRAIL

How the cover gets made

❶

"This week we're looking at a perfect storm that's facing the US."

"Can you be more specific? My AI bot can't make anything off that."

"I truly hope you're joking, but yes, a potential default, countries ditching the dollar, ongoing inflation and that banking crisis have all made things a bit precarious."

"But the US is still No. 1 right? I mean, that's kind of our brand."

"If I had to describe our status using a single scene, I'd say… an eagle sitting on a lawn chair trying to cook a turkey over a fire of dollar bills and credit card statements, while doomscrolling on TikTok."

"That definitely does not say 'trustworthy global power,' but it accurately describes my Saturday!"

"Sigh. Can you turn it into a magazine cover?"

"I'm thinking something classier, with more grappling and nods to Roman history."

"Well, we know how that turned out…"



Cover: Illustration by Berke Yazicioglu

BUSINESS: KELLY BACKUS/ESPN IMAGES


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● War in Ukraine

► Ukraine said its forces were advancing in the suburbs of Bakhmut in heavy fighting, even as Russian troops, aided by artillery and reinforcements, pressed ahead in the city itself.

► Early on May 16, Ukrainian air defense systems destroyed a blitz of 18 Russian missiles, including 9 Kalibr cruise missiles and 6 Kinzhal hypersonic weapons, targeted at Kyiv.

► President Volodymyr Zelenskiy made a surprise visit on May 15 to Rishi Sunak's Chequers retreat. The UK prime minister spoke of forming a coalition to send fighter jets to Ukraine.

● The economy of the EU grew by 1.5%, but its greenhouse gas emissions fell in the fourth quarter of 2022 by

4%

from the previous year, according to Eurostat data. The energy crisis caused by Russia's invasion of Ukraine hasn't led to the short-term increase many feared.



● Activists pile plastic bags around the Obelisk of Buenos Aires on May 13, in preparation for Global Recycling Day on May 17. According to the OECD, less than 10% of plastic gets recycled. We produce almost a half-billion tons of it each year.

● Ecuadorian President Guillermo Lasso dissolved the opposition-held congress to avoid impeachment.

His unprecedented move will trigger snap elections, in what's colloquially known as "mutual death" because Lasso is putting his own job on the line. Center-left parties have joined the conservative opposition in accusing Lasso of embezzlement for failing to cancel an oil shipping contract; he denies the allegations.

● Wells Fargo will pay

$1b

to settle a shareholder lawsuit saying then-CEO Tim Sloan and other executives made misleading statements about the bank's compliance with federal consent orders following the 2016 scandal over the opening of unauthorized accounts. A spokesperson said Wells Fargo disagrees with the allegations but is "pleased to have resolved this matter."

● Bashar Assad, Syria's embattled president, has been invited to the COP28 climate talks in Dubai.



Assad was already set to attend the Arab League summit on May 19 in Jeddah, Saudi Arabia. Until now, he'd been frozen out of regional politics during the Syrian civil war. The yearslong conflict has killed a half-million people and displaced half of the country's population.

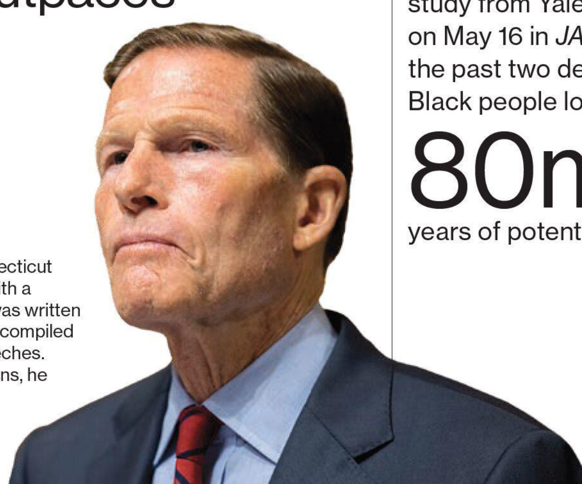
● The FTC sued to block drugmaker Amgen's

$27.8b

deal to buy Horizon Therapeutics on May 16. Regulators argue that the tieup would stifle competition for the development of treatments for serious illnesses, entrenching Horizon's monopoly on medications for thyroid eye disease and chronic refractory gout.

● "Too often we have seen what happens when technology outpaces regulation."

Senator Richard Blumenthal, a Connecticut Democrat, opened a hearing on AI with a recording of his voice—but the text was written by OpenAI's ChatGPT and the audio compiled by an app trained on his Senate speeches. The technology's potential applications, he said, were "scary."



● At the onset of the Covid pandemic, excess deaths among Black Americans reached their highest rate since 1999, according to a study from Yale published on May 16 in *JAMA*. During the past two decades, Black people lost about

80m

years of potential life.

● Areej Al Sadhan, sister of an activist who disappeared in 2018, is suing Twitter and Saudi Arabia.

In her suit, filed on May 16 in a San Francisco federal court, Al Sadhan alleges that the "Saudi Criminal Enterprise" used Twitter's confidential user data to illegally spy on, kill, torture, disappear, extort and threaten perceived dissidents to "suppress speech globally and to export terror and repression into the world's democracies."

OBELISK: HRISTO VLADEV/GETTY IMAGES. ASSAD: MATIN GHASEMI/GETTY IMAGES. BLUMENTHAL: NATHAN POSNER/GETTY IMAGES

Electric Vehicles Alone Can't Solve Climate Change

Arresting climate change requires, among other things, the widespread adoption of electric vehicles. But managing the transition from gas-powered cars won't be easy. President Joe Biden's administration has proposed rules to sharply limit tailpipe emissions, with the aim of compelling automakers to devote at least two-thirds of new sales to EVs within the next decade. For this policy to work, the government will have to get a lot of other things right.

The plan's logic is straightforward: To meet its 2050 zero-carbon goals, the US needs to slash emissions from cars and trucks. Getting more EVs on the road will help. But without supporting policies, EVs are unlikely to cut carbon emissions as much as advocates envision. Policymakers owe the public an honest accounting of costs and benefits.

Worldwide, EVs account for 13% of new-car sales, up from 0.2% a decade ago. Their US market share has almost doubled over the last year, to 5.8%, thanks in part to federal tax credits of $7,500 included in the Inflation Reduction Act. Biden's new regulations aim to accelerate the transition by lowering the cap on carbon emissions for new vehicles in 2032 by 56% from 2026 levels. For automakers to meet the tougher standards, 67% of their sales would have to come from zero-emission EVs.

Such goals are laudable, but as things stand it's doubtful the US can achieve them. Generous subsidies have juiced demand for EVs, but maintaining them will be costly. The average price of a new EV is still $12,000 higher than that of a gas guzzler. Experts project that EVs may reach price parity as early as this year, but even then, Americans are unlikely to abandon their gas-powered cars if the battery-charging infrastructure remains inadequate. Note, too, that EV buyers don't typically stop driving their other cars: Current EV owners have an average of 2.7 vehicles, compared with 2.1 among all households, and two-thirds use their gas-powered vehicles more often.

Other factors will also complicate the transition. The auto industry's rapid shift to EVs at the expense of more efficient gas-powered models might cause some consumers to keep driving dirtier vehicles longer than they otherwise would. Electric vehicles also create carbon footprints, once one accounts for the mineral extraction needed to assemble their batteries and the electricity needed to power them. That's to say nothing of the supply chain challenges: Numerous vital components are now largely produced in China.

EV uptake should certainly be encouraged—but alongside measures to mitigate these challenges and guard against unintended consequences. Policymakers need to speed the build-out of charging stations and promote domestic extraction of critical minerals. No less important, cheaper fuel-efficient alternatives and rival zero-emission technologies should be allowed to compete with EVs on level terms.

Ideally, an economywide tax on carbon emissions should be part of the mix. This would raise the price of gasoline and encourage consumers to buy clean-energy cars (regardless of the technology used) while driving their older, dirtier models less. Crucially, it would also promote energy efficiency more broadly and accelerate efforts to decarbonize the supply of electricity. Granted, building political support in the US for a carbon tax is challenging. Until that changes, the government can still incentivize low-carbon transportation more effectively—by extending tax credits to gas-powered hybrids and imposing congestion charges in urban areas, for example.

Fighting climate change requires a comprehensive and coherent strategy. EVs are part of the answer, but only part. Much hard work remains to be done. Ⓑ *For more commentary, go to bloomberg.com/opinion*

■ AGENDA



ILLUSTRATION BY ROB & ROBIN

► Hit the Road, Jack

This Memorial Day weekend, May 27-29, about 42.3 million Americans will travel 20 miles or more, AAA says, a 7% increase from 2022. One incentive: A gallon of gas in the US averages $3.53, almost a dollar less than a year ago.

► The US Bureau of Labor Statistics reports the May unemployment rate on June 2. Analysts expect it to stay near the 50-year low of 3.4% reported for April.

► In the UK, the Office for National Statistics reports its inflation data on May 24. With inflation still stubbornly high—above 10%—the Bank of England will likely continue raising rates.

► Germany's GfK and Japan's Cabinet Office release their assessments of each country's consumer confidence on May 25 and May 31, respectively.

► Zoom Video reports earnings results on May 22; Intuit and Lowe's, on May 23; Nvidia, on May 24; Costco, on May 25; HP, on May 30; and Salesforce, on May 31.

► Local and regional elections on May 28 will test the mood of the electorate in Spain six months from December's general elections.

► The French Open starts on May 28 in Paris. Rafael Nadal, the king of clay, is struggling with injuries, so oddsmakers favor Novak Djokovic or Carlos Alcaraz for the men's title.

Did You Say DEFAULT?!



The US is undermining its status as an economic superpower

By Saleha Mohsin and Enda Curran

PHOTO ILLUSTRATION BY DANIEL ZENDER; PHOTO: GETTY IMAGES

America's sway over the world economy is being eroded by self-inflicted policy wounds, with a dangerous standoff over the debt ceiling putting renewed scrutiny on the dollar's preeminent status in global trade and finance.

A behind-the-curve Federal Reserve struggling to corral inflation, a string of bank failures and now a political deadlock over the government's ability to borrow are chipping away at US authority. At the same time, geopolitical fault lines are hardening, with the US assisting Ukraine in its war against Russia and locked in competition with China, two adversaries poised to exploit any misstep by policymakers in Washington—such as a first-ever US debt default.

Warnings about the decline of American prestige are everywhere. "Anything that moves us away from being viewed as the world's reserve currency, of being the safest, most liquid asset in the world, is bad for the American people, bad for the dollar and bad for the US government," Beth Hammack, co-head of the global financing group at Goldman Sachs Group Inc., told Bloomberg Television on May 9.

The dollar is the most widely used currency in trade and financial transactions. It also accounts for just under 60% of central banks' official currency reserves, though that's a quarter-century low—a sign that its dominance is slipping.

In these uncertain times, hardly a day passes without some country announcing an incremental move to promote the use of its own currency. China, India and Russia, among other nations, have rekindled a long-running conversation around de-dollarization as a way to assert their own hegemony—but also as insurance against US sanctions such as the ones used to punish President Vladimir Putin for invading Ukraine and to isolate Iran after it restarted its nuclear weapons program.

It's not just a matter of geopolitics. As Eswar Prasad, author of *The Future of Money*, tells it, the pillars that support the greenback are starting to show cracks. "It is becoming harder to view the US as a well-functioning, dynamic economy with a deep and sound financial system, backed up by a robust policymaking process with checks and balances," says the Cornell University professor.

Investors may not pay much heed when Brazil's president, Luiz Inácio Lula da Silva, calls for an end to the greenback's reign, as he did during a state visit to China in April. More alarming is the political jousting in Washington over the debt limit, a spectacle that to the dismay of many has become routine over the past quarter century, repeatedly bringing the nation to the brink of a manufactured crisis.

Jamie Dimon, who as chief executive officer of JPMorgan Chase & Co. presides over the world's most valuable bank, has set up a war room to prepare for what would be a "catastrophic" default—an event that according to Treasury Secretary Janet Yellen could come as early as June 1. It's a good bet that competitors as near as Wall Street and as far as Shanghai are carrying on their own D-day simulations.

After three face-to-face meetings, US President Joe Biden and House Speaker Kevin McCarthy have expressed optimism that it's possible to raise the limit by Yellen's deadline.

As many economists, including Sarah House of Wells Fargo, have argued, "you don't even need to actually default on the debt for there to be real damage in the economy." At Bloomberg Economics, a team led by Chief US Economist Anna Wong modeled a scenario where a protracted standoff leads to elevated market stress and Treasury is forced to cut social spending to prioritize funds to repay the debt. They estimate, conservatively, that gross domestic product could contract at an annualized rate of 8% in the second half as a result.

Through wars, recessions and the pandemic, Americans have benefited from the US Treasury bond being the closest thing there is to a risk-free asset, allowing the federal government to fund itself often at lower costs than its peers. Demand for those securities supports a $24 trillion market that's the world's deepest and most liquid. US Treasury bonds also anchor a world-spanning network of financial transactions.

Even if a last-minute deal averts a default, America's reputation as a country that honors its debts could take a hit, with the effects lingering for months or even years. Consider that at a recent auction of four-week T-bills—the shortest-maturity Treasury benchmark—buyers demanded a record yield of 5.84%, the highest for any Treasury bill since 2000.

A less pronounced rise in borrowing costs would still increase the burden of servicing existing debt and force the White House and a polarized Congress to make tough decisions about where to cut spending. There'd be less money to invest in infrastructure, in cleaner energy and the massive subsidies the government has rolled out to boost high-tech manufacturing to compete with China.

The potential of Congress failing to act in time isn't the only act of self-sabotage that's stoking doubts about whether the US should remain at the center of the global financial system. The Fed's failure to address the obvious risks that rising interest rates present to the balance sheets of regional banks, laid out in its own postmortem on the failures of Silicon Valley Bank and Signature Bank, raises questions about its oversight capabilities. While financial crises are a staple of history, repeated "supervisory and regulatory failings will undermine the world's trust in the Fed and diminish the dollar's longer-term attractiveness," says Mark Sobel, who previously oversaw US currency policy at Treasury.

That trust flows in part from the high standard of ethics in America's independent institutions, where insulation from political meddling and adherence to a strict code of ethics is prized. Recent revelations of active stock trading by Fed officials on the central bank's rate-setting committee—which led to two resignations—and of Supreme Court Justice Clarence Thomas accepting gifts and travel without disclosing them are another black eye for the US.

The US isn't the only advanced economy making trouble for itself. The UK's exit from the European Union is blamed by some for denting the nation's appeal as a place for foreign investors to do business. The country has struggled to regain political stability since the 2016 referendum.

The high-stakes battle over the borrowing limit could ▶

◀ also have implications for US security. Director of National Intelligence Avril Haines warned on May 4 that a default would have geopolitical implications, with "almost a certainty" that Russia and China would seek to exploit the moment to push propaganda through "information operations." She added that a default would create "global uncertainty" about the value of the dollar, US leadership and American institutions.

Marcus Noland, executive vice president of the Peterson Institute for International Economics, writes that China would jump at the chance to cast itself as a "benign, reliable leader" in contrast to an "unreliable hegemon" in order to expand its influence. "For a Congress that is obsessed with America's standing vis-a-vis China, the notion that it would commit an own goal and hand China such an opportunity seems incomprehensible," he concludes.

Biden is already showing how the debt limit drama is forcing the US to recede from the world stage: The president scrapped planned stops in Australia and Papua New Guinea following the Group of Seven meeting in Japan on May 19-21 to rush back to Washington to negotiate with Republicans. The change in schedule means Biden will miss a key opportunity to meet with Pacific island leaders in Port Moresby, a decision that threatens to undermine efforts by the administration to strengthen ties in the Pacific in a bid to counter Chinese influence.

It's not just US rivals who bristle at Washington's apparent disregard for the collateral damage US policies inflict. Friends even more than foes have borne the brunt of the Fed's interest-rate hikes, which by driving up the value of the dollar against their own currencies have forced their central banks to respond in kind.

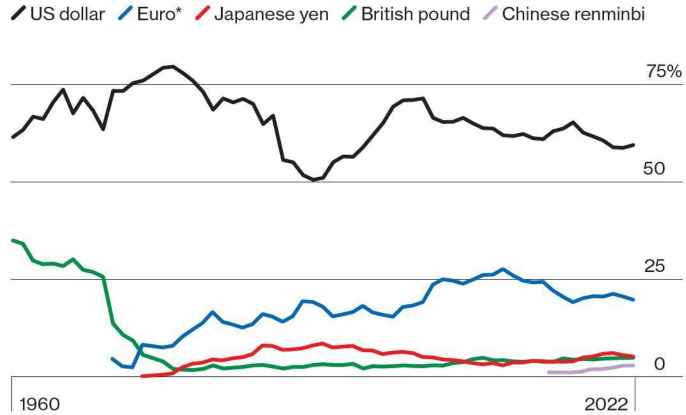
During a seminar at the spring meetings of the International Monetary Fund in April, Felipe Medalla, governor of the Philippines central bank, noted that in the aftermath of World War II the US leveraged its influence and economic might to design the global financial system in its image, and countries like his pay the price. "We wish that Keynes had won the debate in Bretton Woods instead of Mr. White, that the global system was a basket of all the important currencies," said Medalla, referring to the faceoff between British economist John Maynard Keynes and his US counterpart, Harry Dexter White, which set the foundation for the postwar monetary order. "But if I was an American, I would like what happened."

The dollar's enduring preeminence is not guaranteed, however. As Daniel Fried, an economist at the Congressional Budget Office, noted in a working paper published in April, a war or financial crisis can be enough to dethrone one world-dominant currency in favor of another once the second's economy has overtaken the other in size. This was how the Dutch florin eventually gave way to the British pound, which rose to dominance in the 19th century, while the latter yielded to the dollar in the years after World War II.

A March 2022 report by economists at Goldman Sachs enumerated several parallels between the pound in the early 20th century and the dollar at present, including a small share of global trade volumes relative to the currency's dominance in international payments; a deteriorating net foreign assets position, largely the consequence of a growing debt pile; and potentially adverse geopolitics. "The bottom line is that whether the dollar retains its dominant reserve currency status depends, first and foremost, on US's own policies," they wrote.

A Less Mighty Dollar

Share of foreign exchange reserves in global central banks



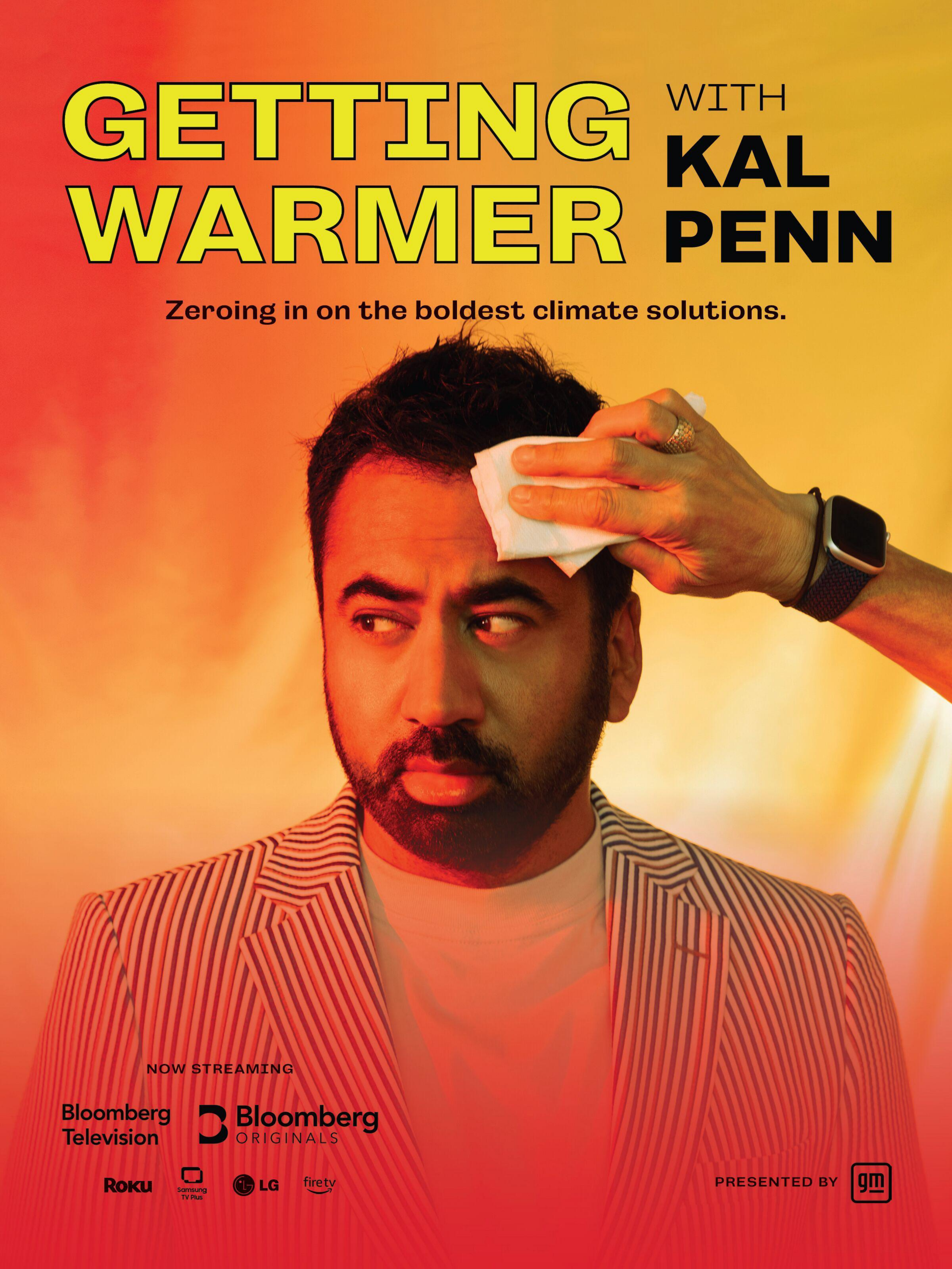
*EURO DATA BEFORE 1999 SHOW THE SUM OF THE FRENCH FRANC AND GERMAN MARK.
DATA: COMPILED BY THE CONGRESSIONAL BUDGET OFFICE

One could debate forever whether America is a diminished superpower. But it still boasts an economy that was around $7 trillion larger than China's at the end of 2022. Moreover, as Yellen and many others have noted, there is no obvious substitute for the dollar. (Underscoring the lack of alternatives, a survey of Bloomberg News readers showed that US Treasuries were the second most popular asset to buy—after gold—in the event of default.)

As recently as the early 1990s, some believed the Japanese yen was on course to supplant the greenback, while some saw the euro as a potential usurper. Both bets proved wrong. Barriers to the yuan replacing the greenback are numerous, starting with Beijing's reliance on capital controls to guard against sudden exchange rate movements.

"The dominance of the dollar seems unassailable despite fluctuations in its value or the quality of US government," according to Catherine Schenk, a professor of economic and social history at the University of Oxford.

So, in short, the debt-ceiling drama may not be the precipitating event that robs the dollar of its mantle. But that's no reason for complacency. "Dollar primacy is a national treasure," former Biden administration economic adviser Daleep Singh said on Bloomberg Television on May 8. "It allows us to fund our government at 20 to 50 basis points cheaper than it would otherwise. It allows us to absorb a shock like the 2011 downgrade of our credit rating. All of that is put at risk in terms of the long-term scarring effects of this type of debate." America's sway over the world economy is being eroded by self-inflicted policy wounds, with a dangerous standoff over the debt ceiling putting renewed scrutiny on the dollar's preeminent status in global trade and finance. Ⓑ


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China's $220 Billion Biotech Flub



● Despite huge investment, deep weaknesses hobble the country's innovation ecosystem

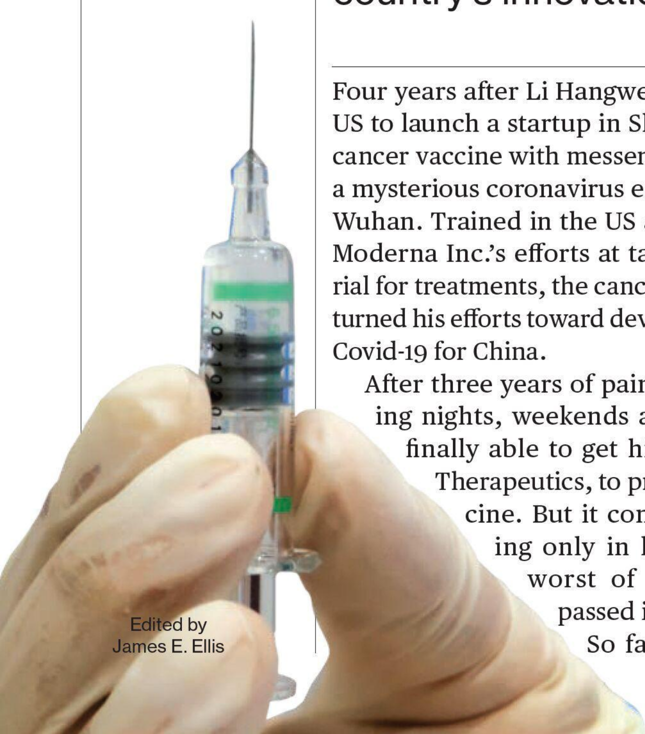
Four years after Li Hangwen returned from the US to launch a startup in Shanghai to develop a cancer vaccine with messenger RNA technology, a mysterious coronavirus emerged in the city of Wuhan. Trained in the US and long inspired by Moderna Inc.'s efforts at tapping genetic material for treatments, the cancer researcher quickly turned his efforts toward developing a shot against Covid-19 for China.

After three years of painstaking labor, working nights, weekends and holidays, Li was finally able to get his startup, Stemirna Therapeutics, to produce an mRNA vaccine. But it completed human testing only in late 2022, when the worst of the pandemic had passed in much of the world. So far the treatment has been greenlighted only in Laos; it's still awaiting approval in China.

Other Chinese drug and vaccine developers faced similar struggles during the pandemic. The country approved its first mRNA shot only this March, from a company called CSPC Pharmaceutical Group Ltd., which is based in Shijiazhuang, 90 minutes by high-speed train from Beijing. Even that came more than two years after shots from Moderna and Pfizer-BioNTech—and well after China's massive outbreak that followed the lifting of Covid Zero restrictions in November.

The pandemic could have been the moment for China's drug companies to shine. President Xi Jinping's administration in 2015 made biotech one of the 10 key sectors to build up under its Made in China 2025 state industrial strategy. The government went on to streamline regulation and attempted to align standards with those of the Western world, aiming to make its drugmakers more competitive so they could eventually challenge Pfizer Inc., AstraZeneca Plc and other giants.

As a result, venture capitalists, private equity funds, investors in initial public offerings and



Edited by James E. Ellis

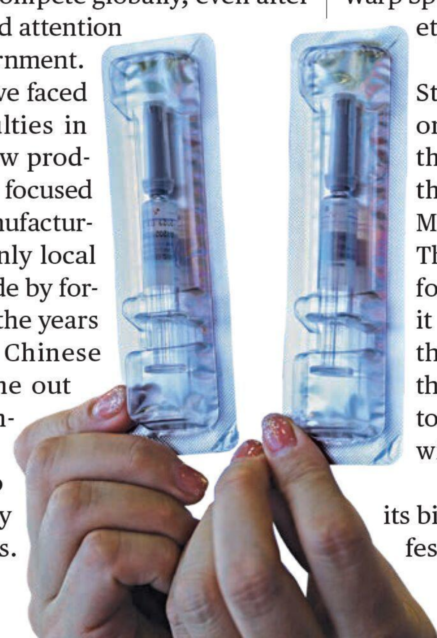
VACCINE: THOMAS PETER/REUTERS (2). LAB: AFP/GETTY IMAGES. WALVAX: JIANG QIMING/CHINA NEWS SERVICE/GETTY IMAGES. HANGWEN: THOMAS YAU/SCMP. DATA: CHINABIO CONSULTING

others have poured more than 1.5 trillion yuan ($216 billion) into the Chinese biotech industry since 2015, according to Bi Jingquan, the former head of China's drug regulator. Chinese companies accounted for 7 of the world's 10 largest biopharma IPOs from 2018 to 2020, according to McKinsey & Co., and the combined market value for the industry soared from $3 billion in 2016 to more than $380 billion in 2021.

But even those outsize bets haven't been enough to transform the sector into a high-tech powerhouse, with the pandemic only highlighting deep weaknesses in the country's innovation ecosystem. More than a dozen founders, scientists, investors and analysts, interviewed by Bloomberg News in China and overseas, pointed to a string of shortcomings holding back the biotech industry, including a lack of basic research and a reluctance to take big risks. There are lingering questions about the Chinese drug industry's ability to produce novel therapies and move away from the "me too" copycats it's churned out for the past decade, they say.

China is "weak on innovation, and its pharma industry stands on wobbly academic foundations," says Jin Dong-yan, a professor specializing in virology and cancer at the University of Hong Kong. "If the industry only takes pride in doling out subpar products to poor countries, that won't constitute going global. It just means embracing backwardness. The industry will get stuck in the lower end of the value chain and nowhere close to the top of the world we had envisioned the industry to be in documents like the Made in China 2025."

The biotech and pharmaceutical industries are among a group of critical sectors, along with semiconductors and aerospace engines, in which China isn't ready to compete globally, even after decades of money and attention from the central government. The setbacks they have faced highlight the difficulties in developing brand-new products in a country that focused for years on mass manufacturing and producing only local versions of drugs made by foreign brands. Despite the years of investment, the Chinese drug sector has come out with almost no completely novel medicines, which are also known in the industry as "first-in-class" drugs.



In August 2022, when McKinsey published a survey of pharmaceutical company executives and investors—many of them based in China—many were uncertain about the country's ability to develop breakthrough therapies in the next five years, given the country's persistent lag in research compared with Western peers.

Li's Stemirna faced obstacles during the pandemic. While pursuing his doctorate at the MD Anderson Cancer Center in Houston, he had studied possible ways to tackle cancer using micro RNA, a molecule that helps control the making of proteins. But as the pandemic continued, he found himself focusing on the new area of infectious disease. And there were few scientists in China with whom to consult. "We have far less experience in the broader RNA space, and that inevitably resulted in the yawning gap with Europe and the US," Li says.

Regulators in China weren't familiar with the technology either, unlike the US Food and Drug Administration, which had experience vetting mRNA techniques for potential drugs and vaccines. This unfamiliarity likely contributed to the Chinese government's decision to take the safer route and rely on more conventional approaches. It provided labs, factories and speedy regulatory approvals to companies developing vaccines using tried-and-tested technologies. Li, meanwhile, depended on funding from private funds such as Sequoia China and spent a lot of time convincing regulators that his vaccine based on the technology was safe.

Moderna's path in the US was dramatically different. It had begun researching the use of mRNA medicines as far back as 2011, and while the pandemic ripped around the globe, it received billions in funding from the US government's Operation Warp Speed, which was putting money into a variety of Covid shots.

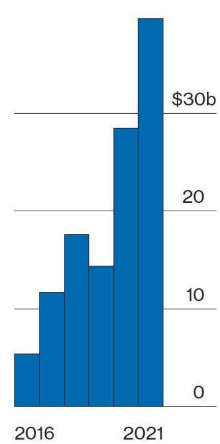
As 2020 went by, the gap between Stemirna and its Western mRNA peers only grew wider. Li and his team ditched their initial candidate when they realized they'd missed a tiny tweak the shots from Moderna and BioNTech SE had been given. Those companies were using the prefusion form of the coronavirus's protein to ensure it generated the right antibodies to fight the disease—and that was likely what made their shots so effective. Stemirna went back to square one to design another candidate with a similar tweak.

"I thought China was more advanced in its biotech industry," says Peter Hotez, a professor at Baylor College of Medicine who ▶



● Li

▼ Venture capital and private equity funding in Chinese biotech startups



◀ served as a US science envoy during the Obama administration. "It was a wake-up call for all of us."

The biotech disappointments have raised broader questions about China's ability to innovate. "The public-health crisis was a test for the biopharma sector and shows innovation doesn't just pop up in a day but comes from long-term accumulation, not just by one company, but by the whole industry under the auspices of the entire country," says Wang Jingsong, founder of Shanghai-based drug developer HBM Holdings.

For now, however, Chinese biotechs are for the most part still simply mimicking the best Western pharma products. "Original new drugs with new targets, in the form of a new molecule and working under a new mechanism of action, are as rare as morning stars," former China drug regulator Bi said at a seminar in Beijing in late 2021. —*Bruce Einhorn and Dong Lyu*

THE BOTTOM LINE Xi Jinping's government in 2015 made biotech one of 10 key sectors to build up under its Made in China 2025 state industrial strategy. Results have been disappointing so far.

Media Mogul Is Peyton Manning's Comeback Play

● His Omaha Productions, with fare such as the Manningcast, is valued at $400 million-plus

Josh Pyatt and Jamie Horowitz flew to Denver in September 2020 armed with a pitch deck and a prayer. Pyatt, an agent at talent firm WME, had helped basketball stars LeBron James and Kobe Bryant build their respective media companies, SpringHill Co. and Granity Studios. Horowitz, a former executive at ESPN and Fox, had demonstrated an eye for talent in nurturing the careers of sports commentators Colin Cowherd and Skip Bayless. Both saw potential in Peyton Manning, a generational performer on the football field and a popular spokesperson off it.

But first they had to persuade Manning to start a company. "From what everyone had told me, he wasn't interested," Pyatt says. Manning had retired from football in 2016 with no plan. He knew he didn't want to coach and had rejected many requests to go into broadcasting. And after years of traveling, he wanted to spend more time at home.



▲ Peyton on the Manningcast set

Pyatt and Horowitz pitched Manning on a media company that he could run from his home in Denver. He could be as involved—or uninvolved—as he wanted. Their timing was perfect: Manning had started making a show for ESPN called *Peyton's Places*, in which he examines the cultural impact of football. But he wanted the freedom to explore subjects outside his wheelhouse, just as the post-retirement Bryant had expanded beyond basketball.

"I wanted to be part of something that I didn't need to be the center of," Manning says. "Just about everything I was doing up until that—speaking, commercials—I had to be there, and I was the sole character."

Two and a half years later, Omaha Productions, Manning's company, is one of the fastest-growing media enterprises in the world. Omaha produces several shows for ESPN, including *Peyton's Places* and the Manningcast, a popular alternate broadcast of *Monday Night Football* where Manning discusses the game with his brother Eli and guests—Barack Obama and Tom Brady have dropped by—in real time. Omaha is also producing a pair of documentary series for Netflix and a couple of projects for Amazon Prime Video, and it makes commercials for such clients as Bush's Beans and Nationwide.

Following in the footsteps of LeBron and actress Reese Witherspoon, Manning is looking to use his celebrity to build a diversified media company—one where he is the name and face of the enterprise, but not the star of every project. The company is

ESPN IMAGES. HEADS: AP PHOTO (5), SHUTTERSTOCK (2). DATA: NEWS REPORTS



about to increase its output with help from media mogul Peter Chernin, former president of News Corp. Chernin's North Road Co. has invested about $10 million in Omaha, valuing the company at more than $400 million. The two companies also agreed to jointly produce projects. "I would never underestimate the level of his ambition," Chernin says of Manning. "He's super impressive, incredibly smart and incredibly focused. He is one of the most focused people I've ever been around."

Manning, who would prepare for games by watching 10 weeks of footage of the opposing team, has jumped into the role of media mogul with his trademark focus. He participates in every major pitch and personally books many of his shows, be it Patrick Mahomes for the upcoming Netflix series *Quarterback* or Obama for the Manningcast.

His influence is most evident in the Manningcast, which bears not only his name but also his style. It's smart but accessible, offering insights into defensive schemes that appeal to the hardcore observer along with the folksy charm that can lure the casual viewer. Manning will critique a quarterback for a bad throw, but he's more likely to praise the defensive back for the interception. "The criteria for being a guest is you gotta love football," Manning says. "You can't come on to promote your tequila."

ESPN Chairman Jimmy Pitaro had first approached Manning about being an analyst for *Monday Night Football*. "I made it clear to him from the very first meeting that I would be creative and work with him to come up with something that works for both of us," Pitaro says.

Manning sensed an opportunity during the pandemic, when he called in to a broadcast of *Monday Night Football* that ESPN analyst Kirk Herbstreit was announcing from his basement, due to Covid safety restrictions. A couple of weeks later, Manning called Pitaro to ask him if announcers could work from home when the pandemic was over. He couldn't imagine traveling to a different site every week, but he liked the idea of calling a game from his basement. He could do it with brother Eli, who had won two Super Bowls with the New York Giants. Pitaro said yes, with one condition: ESPN would need to leave the camera equipment in his basement for six months. "My wife didn't love the idea of that," Manning says. So he found a friend who let him borrow his garage during football season for the next couple of years.

The resulting show was a hit from the moment it went on the air. The audience for the debut broadcast reached 800,000 viewers, and the show averaged 1.6 million in its first year and 1.3 million in the second. And the average viewer of the Manningcast is six years younger than that of the main broadcast, a plus for advertisers.

The success of the Manningcast has led ESPN to expand its relationship with Omaha. The company has produced alternate broadcasts for golf, college football and Ultimate Fighting Championship matches for the network. Omaha also produces multiple versions of *Peyton's Places*, with Abby Wambach hosting a soccer edition, while Ronda Rousey does one for combat sports.

Omaha didn't need to raise money, but Manning was interested in a partner who could teach him a thing or two about media and advance his desire to tell stories that inspire people. Once the No. 2 executive at Rupert Murdoch's News Corp., Chernin has carved out a second life as a media investor. He was one of the first investors in Witherspoon's Hello Sunshine media company and placed early bets on Barstool Sports and the anime service Crunchyroll, both of which he later sold for a hefty profit.

A couple of Zoom meetings with Manning led to Chernin taking a trip to a Denver Broncos game. "It was maybe the worst football game I've ever seen," Chernin says. Undeterred, he spent the next day at Manning's office in Denver talking about their shared vision–one where Manning says he's giving up his quarterback position in the middle of the action for the role of offensive coordinator for his burgeoning media operation. —*Lucas Shaw*

THE BOTTOM LINE Popular athletes have long shifted into broadcasting when their careers ended. But Peyton Manning wanted a way to expand beyond football and work from home.

▼ Other celebrity-founded media companies



▷ HARPO PRODUCTIONS
Founder: Oprah Winfrey
Founded: 1986
Valuation: Not available



▷ PLAN B ENTERTAINMENT
Brad Pitt
2001
$325m to $475m, in a late-2022 deal



▷ HARTBEAT
Kevin Hart
2009
More than $650m, in a 2022 deal



▷ HELLO SUNSHINE
Reese Witherspoon
2016
$900m when sold to a Blackstone-backed company in 2021



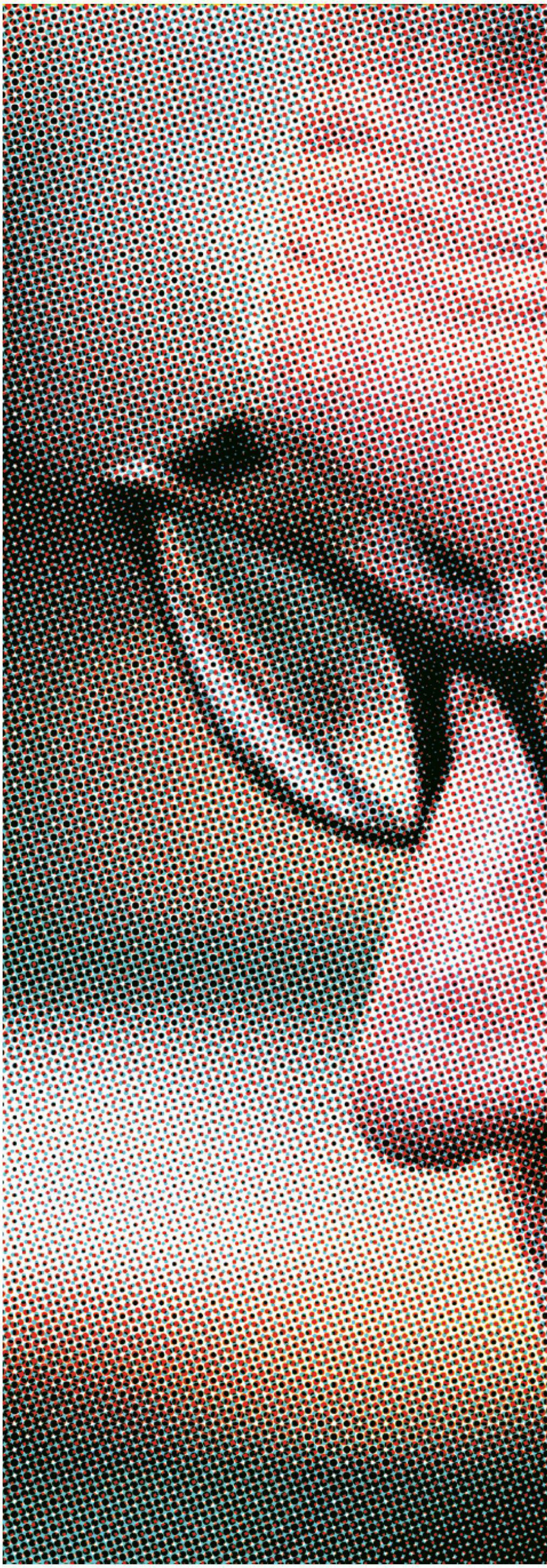
▷ WESTBROOK
Will Smith and Jada Pinkett Smith
2019
$600m, in a 2022 deal



▷ SPRINGHILL CO.
LeBron James
2020
$725m, in a 2021 deal

Apple's Headset Meets Reality

A new wearable device has strayed from Tim Cook's original vision. It will still define the field

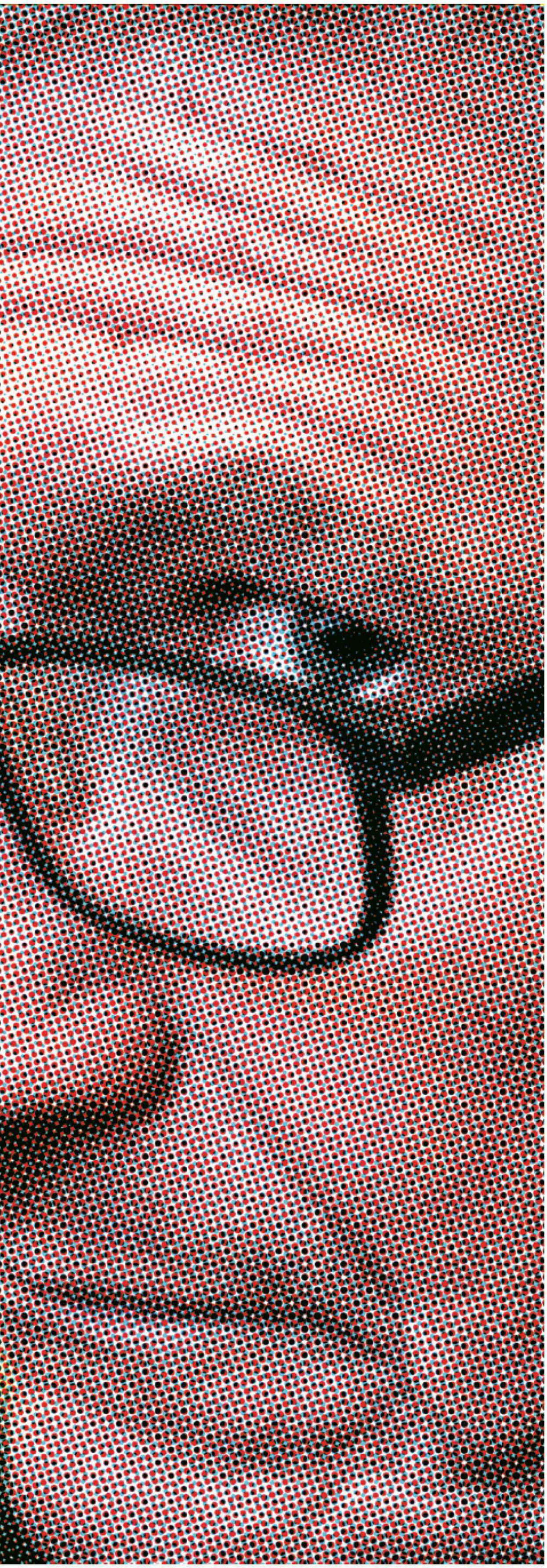


Throughout its history, Apple Inc. has redefined consumer technology by breathing new life into an existing category of gadgetry that had yet to fulfill its promise. On June 5, Apple Chief Executive Officer Tim Cook will take the virtual stage at Apple's Worldwide Developers Conference and try to do for mixed-reality headsets what his company has previously done for music players, smartphones, smartwatches and earbuds. Despite Apple's track record, an air of doubt surrounds the device, expected to be sold under the Reality name. It will run on a new xrOS operating system and cost about $3,000. Billions of dollars of investment into computers you wear on your face from the industry's largest companies and well-funded startups have yet to produce a breakout success.

The device Cook will present, say people familiar with a development process that spread over seven years, has deviated far from his initial vision. Initially imagined as a pair of unobtrusive glasses that could be worn all day, it's morphed into a headset that resembles a pair of ski goggles and requires a separate battery pack.

The stakes are high. For Cook, it's the release of a long-awaited product that could be one of his last big swings as Apple CEO and will affect his legacy, either by giving him another major achievement or underscoring the narrative that the company's biggest victories were initiated under his predecessor, Apple co-founder Steve Jobs. For Apple, it's the

Edited by Joshua Brustein



culmination of a multibillion-dollar development process, and some people within the company have described it as the potential foundation of a post-iPhone era.

For others pursuing mixed reality and the metaverse, Apple's headset could finally prove that the technology can live up to its potential. "Having an entrant like Apple, who usually doesn't jump into a market until it's ready, feels good," says Peggy Johnson, CEO of Magic Leap Inc., an augmented-reality company that raised $3.5 billion with a sweeping plan to build a general-use mixed-reality headset and then pivoted to a more modest vision focused on the enterprise market. "It can be tough to start a market, but you have to hand it to Apple. They're good at things like this," she says.

The details in this story are drawn from conversations with people involved in the headset project, who spoke on the condition of anonymity because of the company's prohibitions on discussing unreleased products. They describe how Apple started the project convinced that mixed reality would be important but concerned that the devices would be socially isolating. After initially setting its sights on a lightweight pair of augmented-reality glasses, Apple gradually drifted toward something that felt more like existing devices because of technological constraints, the desire to get a product on the market and internal disagreements. The company declined to comment.

"It can be tough to start a market, but you have to hand it to Apple. They're good at things like this"

Apple's ambition is that customers will eventually wear the device continuously all day, replacing daily tasks done on an iPhone or a Mac such as playing games, browsing the web, emailing, doing FaceTime video calls while collaborating in apps, working out and even meditating. It will feature hand and eye control and run many of the kinds of apps found on Apple's other devices.

The company doesn't see the headset being as immediately transformative as the iPhone. But internal projections give it the potential to be as big as the iPad or the Apple Watch, as the company adds features and reduces the price. That could mean a contribution of more than $25 billion annually to the company's revenue. Apple knows this will take time. It initially hoped it could sell about 3 million units a year out of the gate, but it's pared back those estimates to about 1 million, then to 900,000 units. By comparison, the company sells more than 200 million iPhones a year.

The lower initial estimates in part reflect Apple's decision to sell the headset roughly at cost instead of at a loss, something it once considered. The product's design is also a tacit admission that ▶

PHOTO ILLUSTRATION BY 731; PHOTO: REUTERS/REDUX

◀ Apple, like others that have made mixed-reality headsets, hasn't been able to solve some core technological problems. Features such as the ability to function as an external Mac monitor and to make multiperson video calls are less advanced than the company initially intended. Apple also had wanted to integrate the battery into the headset, according to people familiar with the project. But to reduce weight and keep the device from overheating, it made a very un-Apple-like design compromise: It redesigned the battery as an iPhone-size pack that sits in a user's pocket, attached by a power cord.

Michael Gartenberg, a former Apple marketing executive who's now an independent consultant, warns that the device could be "one of the great tech flops of all time," citing the lack of a real market for mixed-reality headsets and the performance of existing devices. "I suspect there's a lot of internal pressure for the next big thing," he says.

The term "mixed reality" emerged as a way to describe a class of related visual technologies. One of them, virtual reality, seals off users from much of the real world to immerse them in a digital experience. The other, augmented reality, makes digital items appear to inhabit the physical world. For years, tech companies have been predicting that these technologies will mark the next major shift in personal computing.

Apple began considering building a headset around 2015. It started with other products as the foundation for its own prototypes and experiments, giving demos to top executives and board members. Cook was adamant in his preference for augmented reality, preferably in the form of lightweight glasses. "Nobody in here—few people in here—think it's acceptable to be tethered to a computer walking in here and sitting down. Few people are going to view that it's acceptable to be enclosed in something, because we're all social people at heart," he told a group of students at a 2016 technology conference in Utah.

Despite his strong views, Cook wasn't deeply engaged in the specific design of the headset, say people who have worked with him. This was notably different from Jobs, who was famous for imposing his strong design sensibilities onto Apple products, down to the feel of a touchscreen or the shade of blue used in a Mac app icon. Cook, in contrast, made his name overseeing operations and has never been known as a "product guy." His more distant approach was consistent with his role in the development of the Apple Watch and AirPods. "The closest Cook gets to product development is a demo," says one of the people. "But even then, he's not the type of guy who says it should do X and not Y. He's the complete opposite of Steve in terms of having strong opinions on the minutiae."

Still, some people involved in the headset

A former Apple executive says the headset could be "one of the great tech flops of all time"

The Competitive Field

Companies have spent years trying to find the right formula for mixed reality

HTC VIVE XR ELITE



● Date released

March 2023

● Market price

$1,099

HTC's virtual-reality headset can operate on its own or connected to a PC. It also uses pass-through video to combine physical and virtual worlds.

PLAYSTATION VR2



Feb. 2023

$550

Sony's headset was designed to work with its PS5 console. It plugs into the device with a cord long enough to walk around the living room.

META QUEST PRO



Oct. 2022

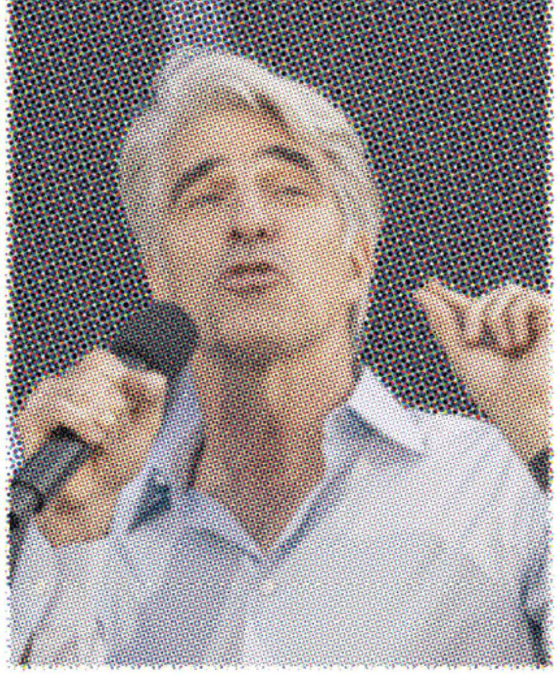
$1,000

This self-contained VR headset serves as a portal to the company's metaverse. Meta cut the price just months after its initial release.

project say Cook's relative noninvolvement has been more consequential this time, given the stakes—the budget has exceeded $1 billion annually, with more than 1,000 engineers working on it—and the changes in the direction of the project. His approach was sometimes perceived as indecision, leading to delays and concerns about obtaining sufficient resources. "Tim didn't throw his weight around the project at all, and this frustrated people," says another person who was involved.

Other key figures in Apple's top ranks, such as Craig Federighi, senior vice president for software engineering, have also kept their distance and seemed wary of the headset, according to people familiar with the project. Johny Srouji, Apple's senior vice president for hardware technologies, has privately been a skeptic, likening it to a science project. Internally he's warned that building the high-performing chips needed for the device could distract from new iPhone chips, which would probably drive more revenue. Srouji's group did end up developing some of Apple's most advanced chips to date for the headset, while iPhone speed gains have indeed slowed in recent years.

Dan Riccio, who was Apple's hardware leader as the headset project began, hired former Dolby Laboratories Inc. Chief Technology Officer Mike Rockwell in 2015 to work on device displays before Rockwell pivoted to assemble a team, dubbed



◀ Federighi

the Technology Development Group, or T288, to explore head-worn devices. As Rockwell was getting started, Apple's industrial design team, led by Jony Ive, then chief design officer, was coming off the watch's introduction and looking for its next initiative. It, too, was exploring head-worn devices and quickly got involved with Rockwell's team.

Rockwell's and Ive's teams disagreed on the project's direction. The headset team initially wanted to build a device that would display virtual-reality content in video-realistic form. This goal required shipping a base station the size of a Mac mini that would beam over the most powerful graphics, enabling top-flight video games ▶

FEDERIGHI: PHOTO ILLUSTRATION BY 731; PHOTO: BLOOMBERG

MAGIC LEAP 2



Sept. 2022

$3,299

The second generation of the Magic Leap headset is firmly aimed at business customers, after its initial model failed to catch on with consumers.

MICROSOFT HOLOLENS 2



Nov. 2019

$3,500

An early AR leader, Microsoft has scaled back its HoloLens ambitions. A big military contract went sour, and it hasn't released a new version in years.

STEAM VALVE INDEX



June 2019

$749

This VR headset from Steam is focused on gaming, with specialized controllers and high-end audio. It requires a PC to operate.

◀ and hyperrealistic content. This setup has been a common way to increase the power of VR headsets, but device makers have increasingly sought to avoid it.

Ive, who remained involved until about a year ago, preferred a standalone, maximally portable device, even if this meant sacrificing some performance. He expressed concern that Apple would end up creating a product that isolated humans from one another. Ive's vision, which hewed much closer to Cook's conception of a glasses-like device, eventually won over Apple's executive team. (Ive didn't respond to an interview request.)

The team developed a compromise: a VR device, code-named N301, that would function in some ways like an AR device. In contrast with other augmented-reality headsets, users wouldn't see their surroundings directly. Instead, external video cameras would capture their environment and display it on a screen when users switched the headset from VR mode to AR mode, a feature known as "video pass-through."

In an attempt to keep users engaged with the real world, the device will have an outward-facing display showing their eye movements and facial expressions. Apple regards this feature as a key differentiator from enclosed VR headsets. One person familiar with the device says the exterior screens allow people to interact with a headset wearer without feeling as if they're talking to a robot.

By the end of 2017, Apple said it believed it could begin selling the device by 2020. But the project was slowed by challenges in hardware and software, as well as a lack of agreement about which applications were most likely to resonate with consumers. The onset of the Covid-19 pandemic delayed progress further. In 2021, Riccio, the hardware chief, left his broader position but stayed on solely to finish work on the headset's debut.

Apple had realized soon into the project that it wasn't feasible to build AR glasses to its standards. The company's engineers determined it would have to replicate the performance of an iPhone while using only a tenth of the power, to keep from getting too hot. Despite this, Rockwell's team continued to describe its work as laying the foundation for AR glasses to secure resources, even as only about 10% of those resources were going toward that end.

A person on the project describes a running joke that engineers were working on the hopeless N421 just to keep Cook happy. By 2019 the company had made little or no headway on developing a viable plan to make AR glasses. Yet, in an all-hands meeting at the end of that year, Rockwell told hundreds of his colleagues that Apple could introduce glasses one year after it began selling the first headset, say people who were at the event.

Apple eventually postponed any serious product development on standalone glasses for years, all but killing the idea, according to people involved in the process. They say that Apple is at least four years away from introducing any such product, if it ever happens. It plans to begin selling its new device in the coming months.

In many important ways, Apple has followed the path of other companies pursuing mixed-reality tech, starting with high hopes for a self-contained, comfortable device that would feel more like a fashion accessory than a computer strapped to your face, then compromising after struggling with difficult technical problems.



▲ Srouji

One open question is how people will use the device. "It was very clear what the iPhone and iPad would do, but the watch meandered all over the place," a person familiar with the product says. "The headset will be similar, but there is hope that third-party apps will save it." (One internal presentation suggested that people will wear the headsets to parties in the physical world, interacting with people through the external devices.) Apple is already engaging with software and game developers, as well as other entertainment companies to have content ready once the device goes on sale.

When Cook makes his pitch in June, he's unlikely to dwell on how much Apple's headset resembles the bulky ones he criticized at the outset of this process. Still, having something to sell is just one of the necessary steps along the way to finding what works, says one person familiar with the project. "You land a beachhead," this person says, "and improve on it." —*Mark Gurman*

THE BOTTOM LINE Like other mixed-reality companies, Apple had to make significant compromises after grappling with the thorny technical challenges of making a face-worn computer.

PHOTO ILLUSTRATION BY 731; PHOTO: BLOOMBERG

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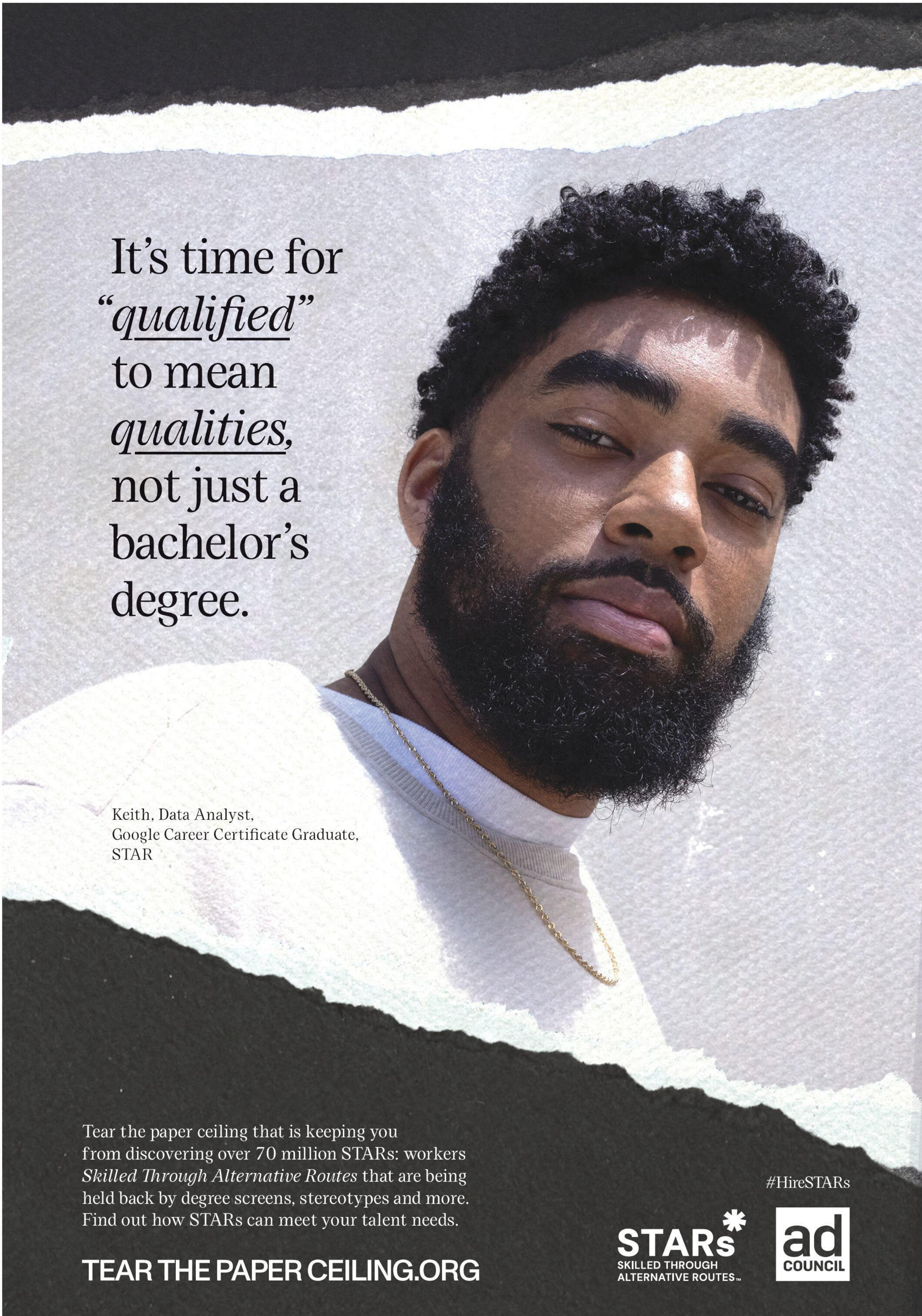

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Greenhushing

● After blistering Republican attacks, ESG is going quiet on Wall Street

Sustainable investing was a feel-good business for Wall Street, a way for asset managers to tout their ability to make money while paying attention to companies' carbon footprint and social impact. Then it got pulled into America's culture wars.

The acronym ESG—for environmental, social and governance investing—was transformed from finance industry jargon into another three-letter acronym for something conservatives don't like, alongside DEI (diversity, equity and inclusion) and CRT (critical race theory). Elon Musk has attacked ESG on Twitter, and many Republicans want to cancel it. Florida Governor Ron DeSantis, a likely 2024 White House candidate, signed a bill in May banning the use of ESG criteria when investing public money. Other anti-ESG bills are wending through statehouses, while GOP-controlled states have collectively pulled billions of dollars from funds run by Wall Street's biggest ESG champion, BlackRock Inc. Speaking recently to a local Republican Party convention, Utah State Treasurer Marlo Oaks described ESG as part of "Satan's plan."

Now money managers and bankers who once waxed lyrical about pursuing net-zero emissions goals and diversifying workforces are speaking much more softly. Some have been revising language in pitch books, marketing materials and reports to downplay or remove altogether references to ESG and related issues. State Street Corp.'s investing group in a six-page climate report last year said they believed "climate change posed a systemic risk" to companies they were invested in. They shrank the report to four pages and removed that sentence from its latest version. (State Street said in a statement that climate change remains a top priority.) Some major firms have also quit a climate-finance group, and sales of ESG-related bonds in the US have plunged.

John Hoeppner, a US sustainability executive at one of Europe's largest money managers, Legal & General Investment Management, is among those who've shied away from using the catchall term "ESG" in meetings with clients. "It's hard," he says. "But the current political environment is forcing us to be sharper, crystal clear about what we do." For one smaller money manager, the Republican attacks got to be too much. Trey Welstad, who works at Viking Integrity Funds, in Minot, North Dakota, removed "ESG" from the name of a fund last year, saying the label had become too politicized.

Conservatives argue that ESG gives too much power to large asset managers who are pivotal in shareholder votes. "We are concerned that taxpayers' best long-term economic interests might have become subordinated to environmental, social and political interests," a group of state chief financial officers including Utah's Oaks wrote in a letter to 20 asset managers on May 15.

Before Republicans were attacking ESG for being too green or too liberal, it was more often criticized for being too vague and too marketing-driven. It's a broad term for everything including funds that shun all oil companies and baroque scoring systems that might lower a company's rating for, say, increasing emissions from its truck fleet or reward another for publishing a corporate ethics policy. Fund managers may use ESG factors as part of stockpicking, or they might consider them in shareholder votes. The fuzzy definition of ESG led one industry group recently to revise its estimate, lowering the ▶

Edited by Pat Regnier

◀ amount of money in US ESG funds to $8 trillion from $17 trillion two years ago, largely because it changed the way it measures assets. Advocates for tougher environmental standards often accused Wall Street of using ESG to "greenwash" its image. Now they worry that big money managers are "greenhushing," or deciding not to speak so publicly about climate and other issues.

But go to Boston, home to many smaller socially responsible investing firms, and the mood is sanguine. In this city, where the mayor has committed hundreds of millions of dollars to ESG investments, the practice has deep roots. Religious groups such as the Unitarian Universalist Association helped lead divestment efforts during South Africa's apartheid era. Here you'll meet money managers who say the ESG controversy has hastened conversations about what ESG is supposed to accomplish. And they're betting that even as red state officials attack ESG, there are other money management clients who want more of it. "If we debated ESG with someone who heard Mike Pence talk negatively about it, we can win that discussion every time," says Patrick McVeigh, co-founder of Reynders McVeigh Capital Management, who's worked in socially responsible investing for 40 years.

Sonia Kowal, who runs one of the oldest socially responsible investors, Zevin Asset Management, describes the Republican onslaught as "farcical" and having little impact on her business. Leslie Samuelrich, president of Green Century Capital Management, says the backlash barely comes up in conversations with her investors.

Matt Patsky, who created a "green-chip" index of companies in the 1990s, when he worked at Lehman Brothers, says the attacks aren't new. They may be more widespread—Patsky's father, an avid watcher of Fox News, asked him whether what he did at work was ESG and if it was as bad as the hosts made it sound. But he takes that as a good sign. "Oh my God, it's working!" says Patsky, who runs Trillium Asset Management. "We must be finally having enough impact that they're reacting to it."

It's a sentiment shared by the man who led a group that coined the ESG acronym in the Swiss offices of the United Nations in 2004. Their aim was to pivot from socially responsible investing and appeal to Wall Street by focusing on risks and moneymaking opportunities from environmental, social and governance issues. Paul Clements-Hunt has said the attacks are giving ESG free publicity. "That's exactly what we want," he says. "What took them so long?"

Sandra Carlisle, head of sustainability at Jupiter Asset Management in the UK, says peak ESG probably came with the debut of the chief sustainability officer Barbie doll last year. She says it marked how ESG had been hijacked by marketers. Employees were spending too much time on the climate conference circuit, Carlisle says, and even she was cautioning her own marketing team to slow down. "Virtue signaling had run amok," she says. Carlisle is calling on her industry to get back to the hard work of financial analysis and stop using industry jargon with clients.



▲ Patsky

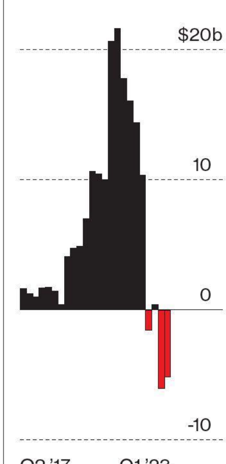
Others are trying to mount a defense. A Boston nonprofit seized on language Republicans use to help start a campaign called "Freedom to Invest." Its signatories include former US Vice President Al Gore's investment fund and the outdoor apparel company Patagonia. The group also found an unlikely ally, Eli Lehrer, a Republican who's president of the R Street Institute, a free-market think tank in Washington. "Investors should be free to consider anything that may impact the long-run performance of a company," he says.

ESG advocates say companies that aren't thinking about issues such as climate change are hurting their own bottom lines. In 2021, for example, activist investor Engine No. 1 successfully campaigned for changes on Exxon Mobil Corp.'s board by arguing that the company's high levels of investment in oil exploration could prove wasteful if the world is forced to shift to cleaner energy. BlackRock and State Street were among the big money managers that backed Engine No. 1 on that vote.

In New York City, plaintiffs represented by former Trump administration Labor Secretary Eugene Scalia have sued three public retirement plans over their decision to sell about $4 billion in fossil fuel assets. They argue divestment sacrifices returns in favor of political and social goals. A spokeswoman for the pensions says the funds' trustees voted to drop the investments because of "the financial risks of investing in fossil fuel reserves."

For much of the past decade, underweighting energy stocks has been a winning bet. But it hasn't

▼ Flows to US sustainable funds



PHOTOGRAPH BY KAYANA SZYMCZAK FOR BLOOMBERG BUSINESSWEEK. ILLUSTRATION BY LAON KIM. DATA: MORNINGSTAR DIRECT

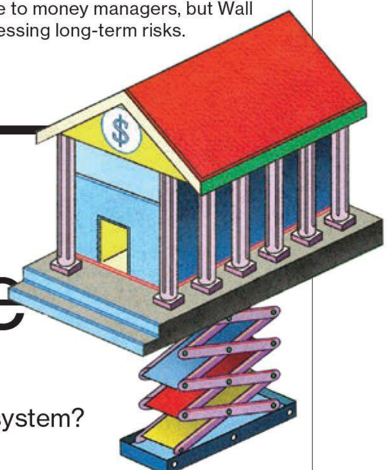
helped ESG's cause that Russia's invasion of Ukraine drove up oil stocks last year. At the same time, there was a slump in the stocks of tech companies, which are heavily owned by ESG investors. So far the GOP attacks have had a modest impact on the flow of money. Even though Florida and other states pulled billions of dollars from BlackRock funds last year, other investors added to US sustainable investments, according to data from Morningstar Direct.

But there were withdrawals in this year's first quarter from those funds. This more likely reflected performance issues and concerns about the global economy rather than politics, says Alyssa Stankiewicz of Morningstar Research Services. Still, the attacks may be discouraging new investors from sustainable funds, she says.

The backlash hasn't kept proponents from pushing ahead. Investors are eyeing opportunities from the US's landmark climate law, which is set to unleash a boom in green projects. BlackRock Chief Executive Officer Larry Fink didn't use the ESG acronym in his latest letter to investors, but he did devote more than a dozen paragraphs to the shift to cleaner fuels. And at a Tesla Inc. investor event in March, Musk—who after all runs an electric-car company—and a group of his deputies detailed efforts to create a world without fossil fuels, in front of an audience sipping water from cardboard cartons instead of plastic bottles. —*Saijel Kishan*

THE BOTTOM LINE Conservatives argue that ESG gives inappropriate political influence to money managers, but Wall Street says it's a matter of assessing long-term risks.

Imagining a Bank Without the Leverage



● A "narrow" bank could take no risk—but is that healthy for the financial system?

The collapse of three regional US banks this spring is a reminder that, at their heart, banks are risk-taking businesses. For most depositors, banks are risk-free thanks to federal insurance of as much as $250,000. That's why "like money in the bank" is shorthand for a sure thing. In reality, of course, the money that people keep in the bank isn't sitting in cash. Deposits are a liability of the bank—a short-term debt it owes to its customers. On the other side of its balance sheet are a bank's longer-term loans and investments. If its bets go the wrong way at the same time that many depositors want their money back, it's in trouble. That's what happened to Silicon Valley Bank and its fellow failures.

But what if a bank did hold all its customers' deposits safely in cash, or something exactly like it—and left lending to other institutions where investors know they're taking a risk by giving them their money. The idea is sometimes called "narrow" banking, because it reduces a bank to its most mundane function. The US Federal Reserve has tools to make this possible but has argued it could upend how the financial system works. "The Fed is negative on narrow banks," says Campbell Harvey, a finance professor at Duke University.

For a big financial institution, the safest form of "cash" isn't a pile of paper bills somewhere, but money parked in an account with the Fed. Individuals don't have access to the central bank's various facilities. But in theory a bank could set itself up as a passive funnel to a Fed account. Customers could put money in this bank, which in turn would stash it at the Fed, passing along the interest minus a service fee. Because every dollar of deposits would be backed by cash, there'd be no risk of a bank run. Variations of the idea have been embraced by libertarians who see it as a way to lessen the need for regulation, but also by people on the left looking to reduce the systemic danger and political clout of too-big-to-fail banks.

The most high-profile push for a narrow bank came in 2018, when TNB US Inc.—run by a former head of research at the Federal Reserve Bank of New York—sued the central bank, demanding that it allow TNB to open an interest-earning account. The Fed objected vigorously, and TNB's suit was thrown out in March 2020.

The central bank has raised several concerns about narrow banks. The main one is that in times of stress they'd be too attractive as a ▶

◀ haven. Money could pour out of Treasury bills, high-quality bonds or even accounts at conventional banks, amplifying risks to the broader financial system. Narrow banks could also make it harder for the central bank to manage short-term interest rates. And because conventional banks could end up holding few deposits, they might do less lending, making loans more expensive and credit harder to get.

Some advocates of narrow banking say more lending could be done by financial institutions or funds that aren't banks. "Take risks, make risky loans—just raise the money to do so by long-term debt or loads of common equity," says economist John Cochrane, a senior fellow at Stanford University's Hoover Institution.

Others think the Fed could use its balance sheet to ensure credit is still available where it's most needed. Saule Omarova, a Cornell Law School professor whom President Joe Biden initially nominated in 2021 to head the Office of the Comptroller of the Currency, has proposed allowing the public to open Fed accounts, which could be administered through existing community banks. She says the Fed could then lend money through its discount window to commercial banks at preferential rates, to encourage them to make loans to small businesses or in underserved communities. Omarova withdrew her nomination to lead the OCC after facing fierce opposition from the banking industry.

There may be more than one road to something like a narrow bank. The recent flood of cash from bank deposits and into money-market funds has underscored that the funds already look a bit like narrow banks. Money-market funds don't have deposit insurance—one big fund famously collapsed during the 2008 financial crisis—but regulations have spurred a shift in balances to funds that invest in instruments implicitly backed by the US government. These days they've collectively been parking more than $2 trillion overnight in another Fed instrument, known as the reverse repo facility, and earning more than 5%.

The central bank recently tightened its rules around its reverse repo facility, in an apparent effort to keep anyone from using it as a backdoor way to create a narrow bank. If the Fed determines a fund seems to have been designed only for the purpose of moving cash into this facility, it can deny access.

This was particularly bad news for a part of the cryptocurrency industry known as stablecoins. These coins, which are supposed to always be worth $1, generally need to be backed by cash or low-risk investments to work. If a stablecoin's assets were fully invested in a money-market fund that used the central bank's reverse repo facility, it might look like a de facto Fed-backed cryptocurrency. But the Fed is already wary of letting digital assets any closer to the traditional banking system, so it looks as if there won't be any crypto narrow banks for the foreseeable future. *—Alex Harris, with Olga Kharif*

THE BOTTOM LINE The fall of Silicon Valley Bank and others is bringing back the idea of a bank that can't be run. But for most depositors, federal insurance already makes banks safe.

It's 11 p.m. Do You Know Where the S&P 500 Is?

● All-night retail stock trading is here, but most investors are probably better off catching z's

Money never sleeps on Wall Street. Or at least that's what Michael Douglas's character Gordon Gekko tells us in the Hollywood version of Wall Street.

And now the amateur traders on all the other streets will get the opportunity for their own stock-market-induced insomnia: Robinhood Markets Inc. has introduced 24-hour trading in 43 of the most active US exchange-traded funds and individual companies such as Tesla, Amazon and Apple. Orders now can be placed and executed anytime from 8 p.m. New York time on Sunday to 8 p.m. on Friday. Robinhood joins Interactive Brokers Group, which recently introduced overnight trading of 79 stocks and ETFs, and other brokerages offering round-the-clock trading only of popular ETFs.

Quick, to the day-trader message boards on Reddit for some reaction from the target audience! "Why would anyone want this?" asks one poster. "Because gamblers are gonna gamble," responds another. "Nice! I can save gas from driving to the casino," adds a third. Or as Vlad Tenev, the head of Robinhood, put it on an earnings call: "It allows our customers to better manage their risk and take advantage of opportunities, no matter what time of day they arise."

Given Robinhood's influence in ushering in the chaotic but here-to-stay era of commission-free

ILLUSTRATION BY NICHOLE SHINN

trading, other brokerages will likely keep an eye on how this night-owl trading goes. Perhaps it was inevitable that the stock market would go the way of Denny's and offer round-the-clock service, especially in the age of the app economy, when everything from pizza delivery to cryptocurrency trading and sports betting is available 24/7 on smartphones. Whether it's good for one's mental, physical or financial health to do any of these things is another story.

Yet there's also an argument to be made that it's long overdue for stock trading to escape the tyranny of the Eastern time zone, especially since the bulk of the most important US companies are now based on the West Coast. Some $16 trillion worth of S&P 500 companies—almost half of the index's market value—is domiciled in the Pacific time zone, according to data compiled by Bloomberg. For investors there, the regular stock market session ends at 1 p.m., and even the after-hours trading session is over by 5 p.m.

Add it all up, and there are signs that demand exists for an open-all-night stock market. The boom in day trading during the Covid-19 pandemic triggered a surge in US retail trading in the after-hours session that runs from 4 p.m. to 8 p.m. New York time, according to researchers at Australia's Monash University and the UK's University of Warwick. Yet, they wrote in a 2021 paper, other research suggests profits from many sophisticated trading strategies stem from after-hours activity.



That's not actually good news for those planning to log in on their phones after a family dinner. Rather, the researchers write, it could be "that some market participants are making money at the expense of other (uninformed) traders who are enticed to these (now more accessible) trading venues despite the obvious disadvantages."

What are those obvious disadvantages? Well, just like the service and clientele at your local all-night diner might be a bit thinner and rougher at, say, 2 a.m. compared with 9 a.m., the stock market's a little different at night. Lower liquidity in the current after-hours sessions—meaning fewer buyers and sellers to take the other side of trades—can often lead to abrupt, volatile changes in stocks and wider spreads between the bid prices to buy and the ask prices to sell. More volatility means an investor could end up buying or selling at a temporarily distorted price; wider spreads effectively mean trading costs more.

Orders from Robinhood users during the new overnight hours are sent to an off-exchange alternative-trading system called Blue Ocean ATS (Boats) for execution. Their counterparties include heavyweight professional trading firms such as Virtu Financial and Jane Street, and their orders mix with trades from customers of South Korea's Samsung Securities and Hong Kong's Futu brokerages. Interactive Brokers plans to start sending orders there soon, too. Boats only offers limit orders, where traders set a maximum price at which they're willing to buy or a minimum price to sell. During times of wild price swings, that should help Robinhood investors avoid losses that might arise from ordinary "market orders" to buy or sell at whatever the prevailing price is.

Other venues could be on the way to the all-night party. Billionaire Steve Cohen's Point72 Ventures has backed a startup called 24 Exchange, which has ambitions to go even further than Blue Ocean's five-day service and operate a securities exchange 24 hours a day, 365 days a year. "It's very hard to predict what's going to happen with 24/5 trading, since this is fundamentally new in the market," Robinhood's Tenev said on the earnings call when asked about what sort of engagement he expects from customers. "What we'd like to see is sort of good liquidity available for these symbols, and liquidity to be a little bit smoother, and not as much sort of happening on the open and the close" of regular trading hours, from 9:30 a.m. to 4 p.m. Eastern time.

Still, those are the times when mutual funds, hedge funds and other big-money investors trade because liquidity is the highest, which is something insomniacs will need to keep in mind before firing up their trading apps. "You're not going to get a head trader to wake up at 2 in the morning to go buy stock unless it's a real emergency," says Larry Tabb, the head of market-structure research at Bloomberg Intelligence. "And it costs a lot more money to get in and get out when fewer people are trading." *—Michael P. Regan*

"You're not going to get a head trader to wake up at 2 in the morning"

THE BOTTOM LINE Technology makes 24-hour investing possible, but biology still dictates that stocks are most liquid when most traders in the same market are awake.

UK Tories Bet on Curbing Strikes



CULLEN: VUK VALCIC/SOPA IMAGES/ZUMA PRESS. LYNCH: PHOTOGRAPH BY CARLOTTA CARDANA FOR BLOOMBERG BUSINESSWEEK

● The public supports the demonstrating workers the government wants to rein in

When UK nurses went on strike this month, they hoisted signs, sang along to tunes such as *I Will Survive* and chanted about the Tories they felt had left them little choice. "What do we want? Fair pay!" picketers belted on the steps of London's University College Hospital. "How do we get it? Strike!"

It was May 1, International Workers' Day, which is recognized by most nations other than the US, whose government since the Cold War has deemed it "Loyalty Day" instead. Taxis, trucks and double-decker buses honked their horns in support of the nurses, and passers-by gave thumbs-up and pumped their fists. Royal College of Nursing union head Pat Cullen congratulated the crowd ahead of a group photo. "You're just blinking amazing," said Cullen, whose union had never gone on strike until late last year, when it joined the country's biggest wave of work stoppages in decades. "Let's continue to have our voice."

Withholding labor is the paradigmatic way that workers force bosses (and everyone else) to hear them. In the UK, the government is pushing to make it harder to do. Citing severe disruptions to essential services, the country's Conservative government is advancing a bill that would require "minimum service levels" to be maintained during

Edited by Cristina Lindblad and Rebecca Penty

strikes. Tory proponents say the bill would curb havoc and hostage-taking by unions; labor leaders say it would silence workers and violate fundamental human rights. Both agree it would make the UK more like the US.

"It really frightens me that we may go that way," says Mick Lynch, general secretary of the RMT, a transport union behind numerous strikes over the years. "The fall-away of American union power has meant impoverishment of a lot of people."

Madsen Pirie, president of the London-based free-market Adam Smith Institute, says it pays for governments to stand up to "militant unions," pointing to the track records of Ronald Reagan and Margaret Thatcher. "It's going to reduce the bargaining power of the unions," says Pirie, "because it's the threat of shutting the service down completely that puts pressure on government."

Workers' rights in the UK are more restricted than in much of Europe, but less so than in the US, where most workers are "at-will employees" who can legally be fired for almost any reason. In the US private sector, employees who go on strike have legal protection from being "fired" but often can be "permanently replaced," which doesn't feel much different if you're the one losing your job. Private-sector transportation workers are required to get permission from a government commission before mounting a work stoppage, and even if they get that green light, Congress can intervene to prohibit the strike, as it did with railroad workers last year. For many government employees, such as US postal workers and Florida teachers, strikes are straight-up banned. Laws also prohibit US union leaders from endorsing or even condoning unauthorized work stoppages.

UK law makes strikes somewhat harder to punish than in the US. But that gap has been narrowing. Under a 2016 law, strikes in the UK must first be authorized by postal-mail ballot within the prior six months, with most employees participating, and management must be given a two-week warning before workers walk out. The Tories' new anti-strike bill would leave unions on even trickier terrain by giving the government substantial discretion over who can strike and thus how effective those strikes might be.

Under the legislation, which covers nuclear, border, fire, education, transit and health-care workers, employers would be authorized to dictate which employees must keep working and what they must do to ensure the public keeps receiving "minimum service levels," subject to regulations set by cabinet secretaries. If a strike didn't adhere to the minimum service mandates, workers who participated could be sacked, and their union could be hit with hefty fines.

"The purpose of this legislation is to protect the lives and livelihoods of the public and ensure they can continue to access vital public services," a spokesperson for the government's Department for Business and Trade said in an emailed statement. David Simmonds, a Tory member of Parliament, says it's common sense that core government functions should continue regardless of industrial disputes, adding that not everybody gets to go on strike. "The government's job is to try and strike a balance," says Simmonds.

◄ Cullen of the Royal College of Nursing, with other demonstrators

Unions say they already make arrangements to address bona fide emergencies during strikes. They argue that the Tories, who've been in power for more than a dozen years, are the ones depriving the public of "minimum service" by failing to adequately fund the National Health Service and other parts of the state. Work stoppages give physicians the clout they need to advocate for safety precautions and pay raises key to recruiting and retaining staff, says emergency medical doctor Joanna Sutton-Klein, whose co-workers keep moving to Australia for better compensation.

Without the ability to mount effective strikes, she says, there'd be little doctors could do to stem the attrition that's left the NHS with more than 100,000 vacant jobs. "The employers would have no reason to act on what we had to say, apart from if they felt like it," says Sutton-Klein, a member of the doctor union's executive committee.



▲ Lynch of the RMT, a transport union

Because the Tories have a working majority of 64 seats in Parliament, some form of the bill is likely to pass in the coming months. It's harder to say how long it will stay on the books or how it will affect the political fortunes of the Conservative Party, which is forecast to lose its majority in a ▶

◀ general election expected next year. Recent data collected by YouGov Plc show that 31% think Prime Minister Rishi Sunak is doing well, while 51% think he is doing badly.

Public sympathy for strikers could help the UK Labour Party, which has avoided endorsing the work stoppages but has promised to reverse the anti-strike bill. “We will repeal it when we get into government,” says Justin Madders, the party’s shadow minister for future of work issues, who argues the Tory approach echoes “some kind of totalitarian regime.”

The bill has drawn pushback beyond the usual suspects. The UK’s House of Lords—which lacks final say but can suggest amendments—voted to propose major changes to it. “The Tory philosophy is not to intervene on a day-to-day level in businesses,” says Richard Balfe, a pro-union Conservative in the UK’s upper chamber who sees the government effectively seeking to decide which airline pilots should be commanded to cross picket lines as a recipe for disaster. “It’s a complete mess of a bill.”

The Parliament’s Joint Committee on Human Rights also issued a report in March saying the bill’s provisions contradict European human-rights standards. As written, the committee warned in its report, the bill could allow employers to retaliate against union activists by demanding they keep working during strikes and could apply to not-so-urgent work such as private tutoring and homeopathy. Given the lack of specifics, the committee wrote, the authority vested in the government would be “effectively unlimited.” Conservatives backing the bill argue a post-Brexit UK shouldn’t be trying to win any popularity contests within Europe.

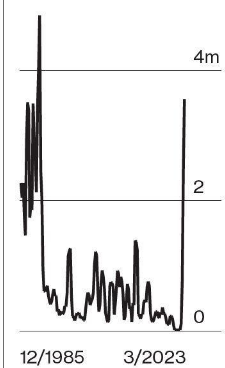
Thatcher, a UK Tory icon first elected prime minister in 1979, rose to power in part by positioning herself as the champion of a weary public facing off against unreasonable unions. But recent opinion polls show much of the public backing employees who walk off the job, perhaps reflecting a mix of appreciation for essential workers and recognition of how badly pay has lagged inflation. In a March survey by Ipsos, 60% of respondents said they’d support strikes by nurses, and in an April poll from the company, 52% of parents said they’d support striking teachers. (Civil service strikes got a colder reception in the March poll—33% support versus 38% opposition.)

The current attempt to rein in unions is “almost like a cosplay approach to the politics of the 1980s,” says Stephen Mustchin, a lecturer at the University of Manchester’s business school. “The curious thing is, I don’t think it’s working.”

James Bethell, a Tory and former health minister who voted against watering down the bill in the House of Lords, called it “an effort to break the stranglehold of the medical unions.” But he’s wary that blowing up the status quo for how workers at the NHS get heard could have unintended consequences. “If you break the template for how these million and a half employees interact with the workplace, it’s not clear what we’re trying to replace it with,” he says. “It may be a pyrrhic victory.”

Just as the nurses’ May Day strike was ending, a teachers’ strike was about to begin. At midday in London on May 2, hundreds thronged the streets outside the nation’s Education Department, waving handmade signs with slogans like “Fund our children’s futures” and “I shouldn’t have to marry a sugar daddy to teach in London.” Teachers and labor leaders urged the assembled activists to help round up support for more strikes, including coordinated walkouts in September. Looking out on the spirited crowd, Carly Slingsby, a primary school teacher emceeing the event, made a pledge: “We are not going away.” —*Josh Eidelson*

▼ Work days lost to strikes in the UK, 10-month rolling period



THE BOTTOM LINE Proposed legislation to limit work stoppages would make the UK more like the US. That scares union leaders, but new rules may not stick if the Tory government is voted out.

Chile’s Copper Conundrum

● The world’s biggest producer of the metal is struggling to boost output even as energy transition revs up demand

André Sougarret won global acclaim in 2010 as the chief engineer on a rescue of 33 Chilean miners who’d spent more than two months trapped 2,300 feet underground. Now, as chief executive officer of Codelco, he must attempt another difficult feat: digging the world’s No. 1 copper producer out of its current hole.



● Sougarret

At the state-owned behemoth, output is running at its lowest in a quarter century, costs have surged, and profit has slumped—all at a time when Chile’s government needs more money to fight festering inequalities and the world needs more copper for batteries and electric grids as it transitions away from fossil fuels. Codelco’s production is down by

MINE: CRISTOBAL OLIVARES/BLOOMBERG. SOUGARRET: PABLO SANHUEZA/REUTERS. DATA, STRIKES: UK OFFICE FOR NATIONAL STATISTICS. DATA, COPPER: CHOCHILCO, CODELCO



▲ Chuquicamata

about a fifth from only six years ago. After a double-digit percentage drop in 2022, it's expected to fall as much as 7% this year, to 1.35 million metric tons.

Ore quality is deteriorating around the world as existing deposits are depleted and new ones are more difficult and costly to develop. "There's no easy mining left—not in Chile nor the rest of the world," said Sougarret at a shareholders meeting on May 2.

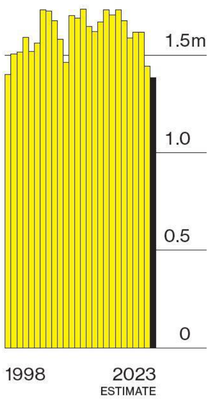
Because Codelco is the world's biggest copper supplier, its production wobbles have greater impact on a market where warehouse inventories are near their lowest levels in 18 years. The company's travails also have tremendous impact on Chile's economy: Copper accounts for more than half the country's exports and a significant share of the government's income. President Gabriel Boric's administration is budgeting a 40% drop in tax revenue from Codelco in 2023 at a time when it's trying to boost social spending.

At least some of Codelco's predicament is historical. US-owned mines nationalized by Chilean President Salvador Allende in 1971 weren't returned to their owners after his overthrow two years later in a military coup. Instead, General Augusto Pinochet used them to create Codelco in 1976. Democratically elected governments since then have milked the company for cash, which at times has constrained its ability to invest in projects to tap richer veins of its giant deposits.

Codelco is spending about $3.5 billion a year to reverse the production slump and will need to accelerate that over the next decade. Much of the money is going into revamping century-old mines that are running out of profitable ore. At Chuquicamata—the largest open-pit copper mine in the world—the company is investing a total of about $7 billion to go deep underground, using a relatively new technique called block caving. At El Teniente, it's budgeted $8 billion to add to the 2,800 miles of tunnels built since the underground operation began in 1905. Codelco is juggling four major upgrade projects at a cost of as much as $19 billion, according to slides from a May 2 presentation. That's a daunting undertaking for any company, especially one in a small economy and in an industry that continues to grapple with supply chain disruptions, inflation, and engineering and construction bottlenecks.

Project delays are a big reason that Codelco's decline in output has accelerated. Another factor has been the mishaps at some of its mines, which include a rockfall, equipment malfunctions and a freeze at a dam that restricted water supplies. Sougarret and Chairman Máximo Pacheco ▶

▼ Codelco's copper production, in metric tons



◀ are trying to get projects back on track by streamlining decision-making, spreading the load throughout the company and working with consultants in areas where it has skills deficits.

The administration of Boric, Chile's most left-leaning president since Allende, is looking to bolster Codelco's finances. Although previous governments allocated funds according to other budget priorities, Boric has agreed to let the company reinvest 30% of its profit, thereby reducing borrowing needs. But "the key restriction is not funds, it's execution," Pacheco said in an interview with Bloomberg News in April. At a recent event at the University of Chile in Santiago, he said: "If tomorrow the finance minister sent us another $6 billion to do projects, we'd send it back."

Adding to the load at Codelco, the government has entrusted it with managing public-private partnerships to exploit Chile's world-beating reserves of lithium—a metal that's much in demand because it's a key component in the batteries that power electric vehicles and a wide assortment of electronics.

The company's new role in lithium production risks becoming a distraction, says Rafael Prohens, a legislator from the opposition Renovación Nacional party who sits on the Senate Mining Committee. "Codelco's output is decreasing strongly and remains far from its potential," he says. "If on top of that we add responsibilities like lithium, we can easily lose more market share in copper and be displaced as a global copper power."

Codelco management says it won't divert resources from other areas to lithium and has the financial support, international reputation and mining experience to perform both roles.

Pacheco in the interview said the company was traveling through "a valley" but would emerge stronger. "I hope—it's in our plan—that before the end of this decade, we're going to be back" producing in the 1.7 million-metric-ton range, he said, a level last attained in 2018.

Returning to that level and beyond will be key if the world is to avoid a shortage of copper. At the shareholder meeting earlier this month, Sougarret displayed a slide that showed an 8 million-metric-ton deficit in the next decade, as growth in demand, stoked by the energy transition, outpaces supply. "We are committed to continue to be the leaders of this industry," Pacheco said. "So when you are a leader, you have a lot of responsibilities, and we feel that on our shoulders." *—James Attwood and Valentina Fuentes*

THE BOTTOM LINE Chilean state-run copper producer Codelco is having to invest billions of dollars to upgrade century-old mines to reverse falling output.

The Elusive Recession

● Economists keep revising the timing of a US downturn. A few think one can be avoided altogether

The small group of economists who've been maintaining that the US can dodge a recession, despite the most aggressive Federal Reserve tightening in decades, is starting to breathe easier.

Many of their peers had expected surging interest rates—up 5 percentage points in just over a year—would have put a more material dent in hiring and personal consumption by now. Instead, the unemployment rate is hovering at a more-than-five-decade low, consumers are still spending, and the housing market is beginning to stabilize.

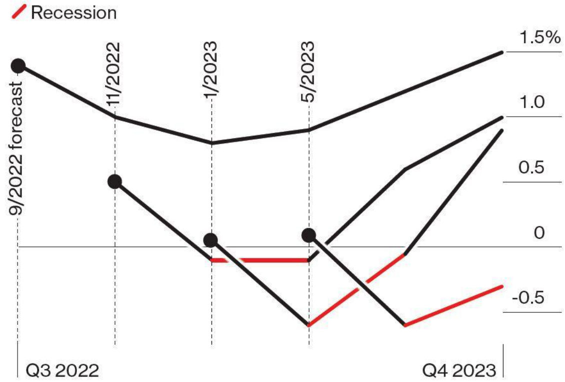
At the same time, inflation has slowed appreciably. That combination is reviving hopes among the true believers, including Fed Chair Jerome Powell, for a "soft landing" scenario in which price pressures dissipate without massive job losses or an economic downturn.

It's still an out-of-consensus call. Of the 27 forecasters surveyed by Bloomberg in early May, only five said they didn't expect the US economy to slip into a recession some time over the next year. Still, the starting point keeps getting pushed back, as a robust labor market keeps wage growth elevated and excess savings accumulated during the ▶

"We were on the optimistic end of this debate"

Into the Future

Quarter-over-quarter change in US real GDP*



*SEASONALLY ADJUSTED ANNUALIZED RATE.
DATA: MEDIAN OF RESPONSES IN BLOOMBERG SURVEY OF ECONOMISTS



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◀ pandemic continue to boost the spending power of American households.

"We all hate that term, 'This time is different,' but we have not seen this dynamic before," says Ellen Zentner, chief US economist for Morgan Stanley. "This is unique." One of the few optimists on Wall Street, Zentner is quick to point out the headwinds facing an economy she describes as "flying dangerously low to the ground." The failure of several regional lenders that buckled under the weight of soaring interest rates continues to reverberate, and data revisions—especially to jobs numbers—could yet change the outlook.

That's similar to the message Powell offered reporters earlier in May, after the central bank raised its benchmark rate above 5% for the first time since 2007. "It's possible that this time is really different," he said, but added, "there are no promises in this."

Lately, the data support the optimists. Hiring picked up in April, pushing the unemployment rate down to 3.4%. Labor force participation, too, has been rising—especially among the cohort age 25 to 54 that economists refer to as "prime working age." It hit a 15-year high last month, alleviating some of the supply-side constraints that have been plaguing the labor market, while a drop in the number of job openings indicates demand for workers is cooling.

Moreover, auto sales surged in April to the highest level in almost two years, suggesting consumers are still more than willing to buy big-ticket items as supply-chain issues ease. Retail sales more broadly posted gains last month, and factory production picked up.

And on the inflation front, services prices excluding energy and housing rose in April at the slowest pace in nine months. Given that Fed officials have been particularly worried about pressures in that part of the economy, the moderation in that metric reduces the chances of additional rate hikes.

David Mericle, the chief US economist at Goldman Sachs Group Inc., is another among the few who've stuck to a no-recession call. It's been a lonely ride, but it's starting to pay off, he says. "We did a lot of good research and came up with a lot of non-obvious things that people missed that informed that view," Mericle says. "We were on the optimistic end of this debate, and in some respects things have gone even better than I would have dreamed."

The vast majority of forecasters still see a recession as highly likely. But the recent run of good data is causing some to rethink the timing. Wells Fargo & Co. economists said on May 11 that they now expect the recession to start in the fourth quarter of this year, instead of the third quarter. Jean-François Perrault, Scotiabank's chief economist, says that while his team expects the economy to fall into recession in the current quarter, they "may be pushing that out" to the third quarter in the next forecast. Kathy Bostjancic at Nationwide, who sees a recession beginning in the third quarter, says continued resilience in the labor market could delay the start to later in the year.

"The consensus forecast for at least a year running has been that we're three months away from a recession, and it just keeps getting pushed back and pushed back and pushed back," says Stephen Stanley, the chief US economist at Santander US Capital Markets LLC.



A third view is that the economy is experiencing a "rolling recession," a term Ed Yardeni says he first used in the 1980s when Texas was hit hard by an oil slump but the rest of the country held up. It's a similar picture today with pockets of pain—merchandise trade has been under pressure, and commercial real estate is teetering—but aggregate growth figures are unlikely to show a technical recession, according to Yardeni, president of Yardeni Research Inc. "That's the story so far, and that's my ongoing forecast," he says.

While the final judgment on the post-pandemic business cycle may not be written for years to come, views will probably continue to morph as new data accumulate and expectations change. "The recession narrative has been a somewhat inconsistent one over time," says Goldman's Mericle. "I think we are on to Version 3 at this point." *—Enda Curran and Reade Pickert*

THE BOTTOM LINE Defying a barrage of interest rate hikes, unemployment stays low and consumers resilient, which has economists pushing recession calls later into 2023.

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RISE OF THE SA



Sweetgreen says its automated Infinite Kitchen will make better, cheaper kale Caesars and happier customers. Is it for real?



LAD MACHINES



BY ELIZABETH G. DUNN

PHOTOGRAPHS BY EVAN JENKINS

"We've been trying to be very quiet about it, because it's not proven out, and we don't want to promise anything." Nathaniel Ru, Sweetgreen's co-founder and chief brand officer, is standing inside a soon-to-open location of the bougie salad chain. He's talking about a steel-and-glass contraption the size of a 1960s computer mainframe that's looming behind the front counter. The device is called the Infinite Kitchen, and its job will be to assemble the hundreds of harvest bowls, kale Caesars and many other permutations of kinda-fancy salads this restaurant will churn out daily.

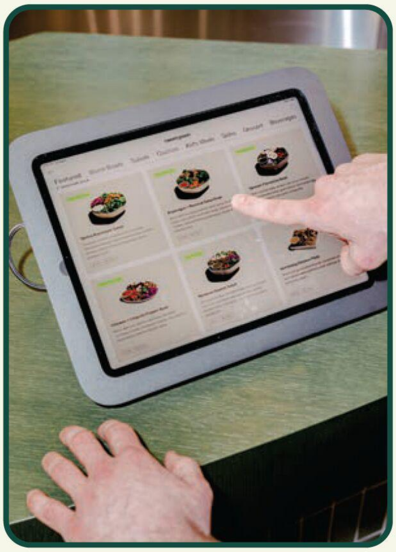
A small team of engineers is on-site here in the Chicago suburb of Naperville, working out any last-minute kinks in the automated assembly line. Michael Farid, one of the Infinite Kitchen's inventors, is excited to show off what it can do. He keys in an order for a spring asparagus salad on one of the restaurant's touchscreen tablets. In front of us, a compostable bowl whizzes forward along a track, pausing beneath a series of clear plastic tubes that call to mind bulk candy dispensers, except they're filled with arugula and lentils and beets. The bowl rotates as ingredients drop inside—in engineering-speak, this is a "two degrees of freedom plating system," but imagine a salad bowl doing pirouettes—ensuring that they're all arranged neatly, just like in the photos.

The exact dispensing mechanism is a matter of strict secrecy, and I've sworn to take what I'm seeing inside the Infinite Kitchen to my grave. The upshot is that it can serve up most of Sweetgreen's 50-odd ingredients, everything from hardboiled eggs to shredded cabbage to delicate cheeses. At the end of the line, an aproned employee adds any items the robots can't handle, such as herbs and a side of dressing, then gives the order a final once-over and places it on a pickup shelf. "I would say our portioning system is a version six or seven at this point," Farid says. "We used to joke that if our whole menu was edamame, this would be so much easier."


FARID

Since its founding in 2007, Sweetgreen Inc. has built an influential fast-casual restaurant chain, now with 200 locations and growing, around cool-kid branding and made-to-order salads. The promise of fresh ingredients, prepped in-house, is the heart of the sales pitch. It's also what makes running the place so expensive and complicated. A traditional Sweetgreen requires as many as 20 employees per shift to do all that chopping, cooking and dishwashing, about half of them tasked with assembling salad orders as they come in.

The Naperville store's employees will continue to prep all the ingredients fresh, on-site. But instead of hauling tubs of chickpeas and cucumbers to resupply two or three lines of human salad makers, runners will climb a set of steps to a platform at the top of the Infinite Kitchen, then feed them down tubes. Laser sensors monitor fullness and read out to screens, calling out an urgent need for, say, spicy broccoli or green goddess dressing.


1. ORDER


2. GREENS


3. DISPENSE


4. RE

"The top drivers of negative customer feedback for us are portion and missing ingredients," Ru says. Sweetgreen salads often contain close to a dozen ingredients, and many are customized, making it difficult to get it all right at speed. The company says that it gets about 90% of orders correct systemwide right now and that the aim is for the Infinite Kitchen to help it achieve near-perfect accuracy.

What will become of all those employees relieved of their salad-slinging duties? While Ru says some of them will be deployed in other ways around the restaurant—for instance, there will be at least one "host" to hand out ingredient samples and recite the how-to-order spiel for new customers—the headcount per store will certainly be smaller. "Off the bat, there would be less people on each shift," Ru says. "How many people, we don't know yet."

Early on, Sweetgreen saw the strategic potential of reaching its customers through an app and wound up at the top of the heap of sad desk salads. Today more than 60% of the chain's orders come in through its website or app, which is high for the category and aspirational for many of the bigger names in restaurant chainery, including Chipotle and Panera. Which kind of makes you wonder: What if history were to repeat itself, this time in the kitchen? Is this salad machine the latest sign that the whole fast-food industry might be on the cusp of a step-change in automation?

Cue breathless speculation about a scorched-earth, job-killing robot revolution, coming soon to a restaurant near you. News coverage of the restaurant industry can give the impression that our *Jetsons* future is just over the horizon. "WATCH: McDonald's Opens First Fully Automated Location in Texas," read one headline from January. Another, from last year: "This Touchless Taco Bell Could Be the Future of Drive-Thrus."

In fact, only the ordering at that Texas McDonald's is automated; people still do the cooking. And according to Danny Klein, the editorial director of the trade publication *QSR* magazine, the Taco Bell in question takes more employees to run than a normal one. But it's true that experiments in restaurant automation are everywhere.

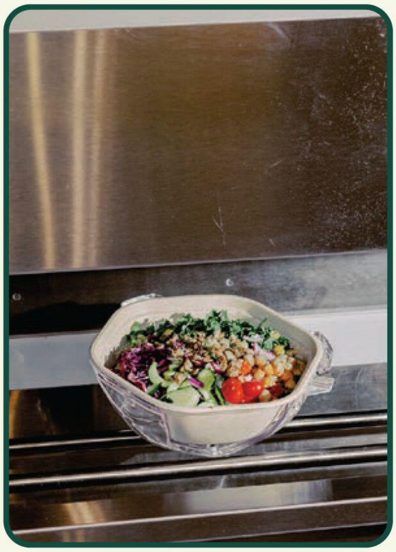
There's a robotic arm called Alfred making salads on military bases, and a company named Blendid has one whipping up smoothies in kiosks. Chipotle Mexican Grill Inc. is trying out a little robot called Chippy to fry tortilla chips. Then there's the robo pizza truck designed by former SpaceX engineers, a pizza-dispensing machine called Piestro, a robotic pizza assembly line from the startup Picnic Works Inc., something called a PizzaBot … so, so many pizza robots.

But the truth is, though a big chunk of fast-food ordering today has been automated by apps and kiosks, when it comes to the actual cooking—the biggest labor component for fast-food and fast-casual restaurants—what's happening behind those swinging doors is far from futuristic. The vast majority of the robotic technologies out there are lingering in the pilot stage and haven't yet attracted the capital needed to move to manufacturing at scale.

"Food service has been behind the rest of the market on anything technology-based for a while," says Rich Shank, a senior principal and vice president for innovation at the food service consulting company Technomic Inc. About 20% of warehouses report using some form of robotics, according to the research company Interact Analysis Group Holdings Ltd., but they are at work today in well fewer than 1% of restaurants.

It turns out that it's really, really hard to build a robot that approaches the adaptability of a human when it comes to all the tasks involved in preparing food. Today's robotic solutions are piecemeal. The closest thing to a mainstream tool is Flippy 2, an automated fry cook made by Miso Robotics Inc. that's currently installed at a few dozen restaurant ▶


PEAT


5. MIX


6. LABEL


7. HUMAN TOUCH

◀ locations across the US, most of them White Castles. (The first iteration handled burgers.) According to Miso's chief executive officer, the company could have Flippy 2s in 100 locations by the end of the year. There are 200,000 fast-food and fast-casual restaurants in the US alone.

The slow pace of innovation may seem odd given that restaurants face a notoriously challenging labor environment, with rising costs, near-record job vacancies and average annual industry turnover above 100%. But because restaurants have so much competition and such low margins, they tend to be more risk-averse than other businesses, Shank says. Consider that adding any new robotic hardware to a fast-food kitchen brings with it not only the cost of the device but also the downtime needed to install it and train employees how to use it, plus added inefficiencies in the event that the thing doesn't work exactly as promised. In many cases, franchisees must also be sold on the idea. McDonald's Corp. CEO Chris Kempczinski said on an earnings call last year that kitchen automation would require too much costly retrofitting to make sense for the vast majority of its restaurants.

Some kitchen robots are designed to power different ideas of what a restaurant can be, such as the automated burger maker Creator or the smoothie kiosk Blendid. But scaling in the restaurant business is slow, capital-intensive work, and faceless robotic arms don't make the most charming salespeople. After the better part of a decade, Creator and Blendid have one and eight locations, respectively. A much-hyped contactless restaurant called Eatsa went bust some years back, Zume's robotic pizza gambit was an epic failure, and Sally, the salad robot owned by DoorDash Inc., recently bit the dust, too.

Over time, though, some robotic tools are sure to break through. After all, the history of fast food is nothing if not a chronicle of labor-saving innovations. Ray Kroc stumbled on the idea for McDonald's while working as a salesman for Multimixer, a mechanized contraption for mixing five milkshakes at once. Ever since, the sector's identity has revolved around finding new and better ways to make good on the promise of speed and value: those Multimixers; smarter, faster grills and ovens; software that eases scheduling or provides step-by-step cooking instructions. It's all automation of a sort, and so far it seems only to have fueled job growth. From 1990 to present—a time that saw countless labor-saving fast-food innovations, including automatic espresso machines and ordering kiosks—food service employment has roughly doubled.



Yet even if robots aren't poised to wipe out jobs across the whole restaurant industry, they might do so for individual chains—especially ones with high-volume locations, streamlined menus and company-owned stores. These were among the criteria for automation successes listed in a recent research note by investment bank William Blair & Co. Starbucks, Chipotle and Shake Shack ranked high, but Sweetgreen was the biggest name with a perfect score. That could mean a smaller payroll behind Sweetgreen's counters, even if the Infinite Kitchen boosts the company's bottom line.

Sweetgreen picked up the Infinite Kitchen technology in 2021 with the acquisition of Spyce, a robotics company whose story reads like a startup economy bingo card. Four broke engineering students at the Massachusetts Institute of Technology (Farid, Braden Knight, Luke Schlueter and, appropriately enough, Kale Rogers) grew frustrated with how expensive and time-consuming it was to eat healthy. The foursome wondered, as one does, if building a robot could help. They put together an automated contraption made from

"IT'S REALLY HARD TO ASK OUR TEAM MEMBERS TO SERVE AN HOUR AND THEN HAVE THEM BE FULLY



plywood and the guts of disemboweled kitchen appliances in the basement of their fraternity house. Five years and $26 million in funding later, their automated assembly line was at work at two of their own salad- and bowl-centric restaurants, and Spyce started looking for buyers.

According to public filings, Sweetgreen paid somewhere in the neighborhood of $50 million for Spyce. (The exact figure will depend on how the technology performs against certain unspecified milestones in the coming years.) Ru won't say how much Sweetgreen has invested in the Infinite Kitchen in total, but he describes the cost of building a unit as "a touch more" than installing their old-school lines. The idea is that they'll more than make the money back in lower labor costs.

The technology on display in Naperville is largely similar to what Sweetgreen bought in 2021. There are new dressing dispensers, with built-in agitators to keep house-made, filler-free recipes from separating. There's now a module for mixing salads that jostles the bowl from side to side—it's still acting up sometimes, and some of the mixing in Naperville may happen by hand.

HUNDREDS OF CUSTOMERS ENGAGED"

The biggest task has been making the Infinite Kitchen as user-friendly as possible. It's one thing to create a machine that can assemble a salad, but it's another to build one that can be successfully operated and maintained by a high-turnover hourly workforce. Initially, for instance, the daily process of cleaning and sanitizing the system was an hours-long affair requiring partial disassembly. Now it can be flushed out at the end of the day in a fraction of the time.

On top of the labor savings and improved accuracy, Sweetgreen says the automated assembly line should be able to handle a greater number of orders at peak times. It might also, the company says, make the jobs that are left more appealing. Frantically scooping quinoa while being barked at by millennials in yoga pants is nobody's dream job. "It's really hard to ask our team members to serve hundreds of customers an hour and then have them be fully engaged in conversation, in a matter of like a 90-second interaction," Ru says.

Ru emphasizes that the Naperville store is only a pilot, an experiment in its ability to attract customers in an area where Sweetgreen has just arrived. The company has a second one in the works, retrofitting an existing Boston store with the new system, and will spend at least six months pressure-testing all its hypotheses before considering any further expansion. How will it affect employee retention? Overall labor costs? And perhaps most important: Will customers still see the machine-made salads as fresh, fancy and worth the money?

Based on the answers to those questions, one can imagine a range of plausible outcomes for the Infinite Kitchen. If the device works as promised and transforms Sweetgreen's cost structure, it could usher in an era of cheaper salads, thicker profit margins and smaller staffs. Or maybe employees and customers take poorly to the contraption, and management relegates it to behind-the-scenes work in delivery-only ghost kitchens. Or it's a disaster and becomes one more headstone in the robotics graveyard.

After all, no restaurant concept with prominent automation has caught fire with American consumers since the heyday of the automat, and though there are many aspects of Sweetgreen's business that give it a decent shot, price isn't one of them. In other words, the company's founders have good reason to set expectations to Modest.

As it prepares to introduce the Infinite Kitchen to a wider audience, Sweetgreen is betting a few intentional design choices will help. Transparent tubing makes those fresh ingredients more visible and prominent than they are in traditional stores—an asset in theory, assuming the daily cleaning protocols live up to expectations.

Toward the front of the Naperville location, a large screen cycles through hero shots of glistening lettuce and beets. Prep cooks have been moved from the back of the kitchen to a room up front, with large windows that make them visible from the street. Ru and I watch as a single cook slices bread and mixes dressings. "It is still a people business," he says.

Eric Adams versus Pre-Schoolers

New York City's universal pre-K program was handed to the mayor almost complete. So why is he gutting it?

BY FOLA AKINNIBI



ONE OF AMERICA'S MOST ambitious child-care experiments is playing out, in part, at a public-housing complex at the far end of Manhattan's East Village. Tucked behind one of the 13 brick towers that make up the Jacob Riis Houses, a few bright classrooms sit filled with tiny furniture and, one morning in March, dozens of toddlers. This is the Jacob Riis Early Childhood Center, one of roughly 1,200 sites that make up New York City's free, public pre-kindergarten program, which operates mostly via contracts with mom and pop providers and local nonprofits.

Mary Cheng, the director of childhood development services at the Chinese-American Planning Council, the nonprofit running this preschool, is at the door to help greet a group of 3-year-olds and their guardians, many of whom live in the complex or nearby. She directs the kids into their classrooms and squats to give out hugs. Once inside, students collect chairs from a stack and scoot them under the miniature table to prepare for breakfast. One exuberant child asks Cheng to draw her a pink dog, then a pink cat, then a mother dog and a mother cat. She obliges with an efficiency and skill that prompt two more sketch requests from curious onlookers. Although Cheng oversees the CPC's care for about 300 early childhood education students across six sites in Manhattan and Queens, working directly with kids and their families remains the most important part of her job, she says, and what she loves the most about it. It's also a welcome distraction from the crisis awaiting her after the kids go home.

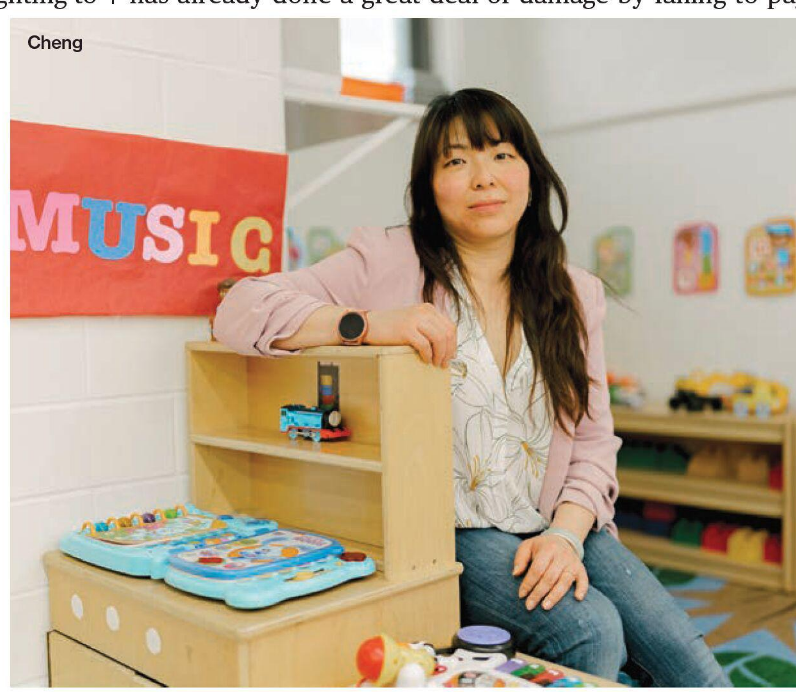
Over the past year and a half, the city hasn't paid the CPC and hundreds of other providers what it owes them for teaching its youngest schoolchildren. Cheng has been fighting to recoup almost $1.6 million for the CPC's work during the 2022 fiscal year. And for fiscal 2023, which began last July, the nonprofit has received only a sliver of what it's owed. "It's not like a failing business because I failed," she says. "It's the city failing me."

Across New York City, larger programs have been forced to tap credit lines, borrow from umbrella organizations and press donors for funds to keep things afloat. Smaller outfits are taking out personal loans, laying off teachers and staff or opting out of the system altogether. So far the CPC has managed to float the early childhood programs' expenses without taking out loans, but Cheng says her team can't do this forever. "Staff are getting burnt out," she says. "For smaller agencies that aren't paying their staff, I don't know how they're surviving."

A decade ago, New York City's free pre-K consisted of a loose circle of means-tested, half-day programs for about 19,000 4-year-olds from low-income families. Today, it's America's largest local system, serving 90,000 3- and 4-year-olds of all backgrounds. It's widely acknowledged as the vanguard of US early childhood education, and it's become a blueprint for similar efforts in Philadelphia and Seattle as well as President Joe Biden's now back-burnered efforts to provide pre-K nationally. It's also the signature achievement of former Mayor Bill de Blasio, whose tenure otherwise played out like a two-term breakup. When de Blasio left office at the end of 2021, his team had not only rapidly transformed and radically expanded the city's pre-K system, but it had also laid the groundwork to add another 30,000 seats for 3-year-olds. This number was the city's benchmark for "universal" 3-K, meaning available to all who want it. This offering is common in other countries, but the only comparable program in the US, in Washington, DC, runs on a much smaller scale.

To families, New York City's model means free child care and education that would otherwise cost them an average of $16,000 per child for the school year alone. And to incoming Mayor Eric Adams, it appeared to be a massive political gift. Nobody was rushing to make de Blasio the national face of early childhood education; mostly, he's remembered for taking a knife and fork to his pizza or rooting for the Boston Red Sox. So if Adams had spruced up some things here and added some efficiencies there, he could have scored from third base and called it a home run. Instead, his administration is gutting the pre-K program's promise of universality, both by failing to pay operators and by refusing to pay for the final 3-K expansion.

The pre-K program costs the city a little more than $700 million a year and has been projected to rise to about $1 billion with the addition of universal 3-K. Adams's latest budget proposal would nix the extra funding, effectively cutting the program by almost $570 million over the next two years. Taking the universal out of universal child care will undermine the aims of the program, and in the meantime, Adams's Department of Education, under Chancellor David Banks, has already done a great deal of damage by failing to pay



Cheng

PREVIOUS SPREAD: ILLUSTRATION BY 731. PHOTOGRAPH BY ELIAS WILLIAMS FOR BLOOMBERG BUSINESSWEEK

providers with any regularity. A January estimate found that the city owed hundreds of them almost $400 million in all.

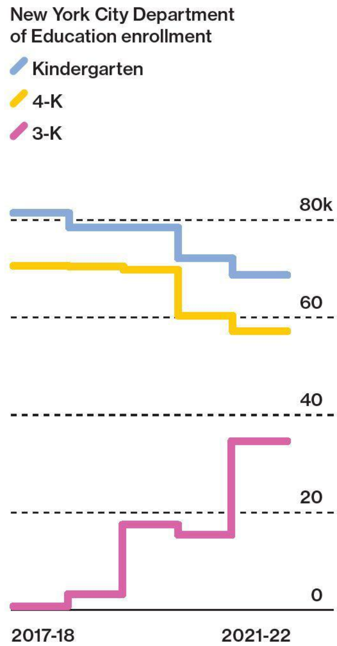
This mismanagement, combined with a new set of education priorities from the Adams administration, threatens to set off a death spiral for the universal 3-K program, according to conversations with providers and 19 current and former employees of the department's Division of Early Childhood Education. Those people, most of whom spoke on condition of anonymity to avoid reprisals from the city government, describe the early childhood division as gripped with fear and mistrust and paralyzed by understaffing.

Adams has characterized his wave of proposed cuts to city services as targeted efforts to focus on quality over quantity. His administration wouldn't comment on how much the city owes pre-K providers or on many specifics of its actions on early childhood education over the past year and a half, but it stressed in emailed statements that it's working to support pre-K students and their communities. "Mayor Adams has put working families and everyday New Yorkers at the forefront of this administration's policy decisions," said City Hall deputy press secretary Amaris Cockfield, citing coordination between Adams's office and various departments and contractors, including at a recent conference. Both Cockfield and Department of Education spokesperson Nathaniel Styer emphasized that the city has begun making catch-up payments to child-care providers.

In his statement, Styer said Adams's team was meeting the goal of "true" universality by focusing on smaller, more targeted initiatives; he blamed the de Blasio team for failing to correctly estimate demand for the pre-K program. "We currently have 30,000 empty seats, a fact that is significantly destabilizing for the entire sector," he said, though he didn't acknowledge that the seats are empty because Adams's Department of Education hasn't filled them. Which is to say, providers such as Cheng can't simply sign up kids on their own—the department has to place them with a provider. So any delays apportioning seats properly, or gaps in outreach leading to lower-than-expected enrollment, are on the city. The administration has said its outreach efforts, including targeted emails, phone calls and virtual events, have led to a 20% increase in applications so far this year.

The New York City Council has been fighting the Adams administration to restore funding for 3-K. This will be one of the central battles over his proposed $107 billion budget for fiscal 2024, which must be passed by the end of June. But before that fight, on the most basic of levels, the city's child-care providers need to get paid. "I think DOE right now is taking advantage of our love, our passion," Cheng says. If providers such as the CPC don't do the work, it's not clear who will.

THE AMERICAN PRE-K SYSTEM IS A PATCHWORK OF state and local policies and programs that collectively lag those of peer nations. In 2020, 64% of 3- to 5-year-olds in the US were enrolled in early childhood education, compared with an average of 83% among wealthy countries generally. The big difference is that many of the other countries have universal public options. Head Start, a program created for low-income families in the 1960s, is the only federal attempt at early childhood education, and it serves fewer than 10% of 3- and 4-year-olds. The benefits of early childhood education, however, are well documented. Tons of research shows that kids who attend high-quality programs at those ages are healthier, do better in school, earn more later in life and are less likely to wind up in jail.



DATA: NYC DEPARTMENT OF EDUCATION

Making pre-K universal for 4-year-olds was de Blasio's top goal when he took office in 2014 with what was, for a nonincumbent, an historic level of popular support. (De Blasio, who declined to comment for this story, succeeded Michael Bloomberg, the founder and majority owner of *Bloomberg Businessweek*'s parent company.) This was well before he was being booed as a matter of course at public events, including a Mets game, an antipoverty fundraiser in Central Park and Coney Island's annual Fourth of July hot-dog-eating contest.

Andrew Cuomo brushed off de Blasio's proposal to pay for 4-K through a tax increase on wealthy residents, in what would become a pattern of feuding between the now-disgraced former governor and the mayor. But de Blasio managed to pry the money out of the state legislature anyway, and his administration spent much of his first year in office talking New Yorkers into joining the program. That meant sending staffers to shelters, communities of color and immigrant communities with information in more than a dozen languages, looking to reach folks who typically aren't connected with their city government. Nine months into de Blasio's first year, enrollment had risen from 19,000 to about 51,000. By the fall of 2015, more than 68,000 children, or about 90% of the city's 4-year-olds at the time, were enrolled, with a seat for everyone who wanted one. The school system had bolted on a new grade.

"Parents have voted with their feet," de Blasio bragged in late 2015. An assessment a few years later found that third-graders who'd taken part in the universal pre-K program tested better than those who hadn't, and the Black-White and Hispanic-White gaps in test scores were narrower among students who attended the universal program.

Resistance from Cuomo and the state legislature stopped de Blasio from making 3-K comparably universal. Then New York City received $7 billion in federal coronavirus relief for schools. In the summer of 2021, de Blasio set aside $376 million of it, plus $242 million in city education funds, to ▶

◀ jump-start its 3-K expansion. This was the fiscal equivalent of a dine-and-dash; financial best practices and common sense generally dictate that short-term aid isn't used for new, permanent programs. But it was a priority for the de Blasio administration. The programs were working, and it seemed as if the mayor or his successor would be able to find the hundreds of millions of dollars somewhere in the city's $100 billion budget. (Plus, around that time, Biden rolled out his American Families Plan with a proposed $200 billion for a national version of the de Blasio program, though it later died in Congress.)

After the funding infusion, enrollment of 3-year-olds more than doubled. But by summer 2021, the city government was already in transition. Adams had won the Democratic primary, all but guaranteeing his victory in the general election that fall. Rather than investing as aggressively as it could in outreach to families, de Blasio's pandemic-depleted team spent much of his final six months in office trying to smooth the city's bureaucratic apparatus. It moved means-tested pre-K services (extended-day preschool, Head Start, some day-care programs) out of the child welfare department and over to the Department of Education's early childhood division, which was already managing the universal pre-K program.

This move was an essential step toward centralizing the hundreds of millions of dollars a year the city was spending on child-care contractors, unifying the programs and minimizing waste. It was also an enormous pain, rich in technical difficulties and delays, according to eight people familiar with the shift. Four of them say the early childhood division had to give pre-K providers sizable cash advances, amounting to over a third of their contracts' value, to keep them afloat during this period.

By the final weeks of de Blasio's tenure, in December 2021, the division had successfully brought the programs under its roof. The system was working, but it was complex and creaky, requiring a serious level of institutional knowledge and cooperation across teams to navigate and get providers the money they were owed.

The incoming administration seemed to have different priorities. It dismissed Josh Wallack, the deputy chancellor who was running the division and had helped implement the pre-K program from the outset. (Wallack declined to comment.) His replacement, Kara Ahmed, had been running a much smaller program providing day-care and education services to the young children of student parents. Current and former employees say Ahmed neither met with Wallack nor sat down to debrief the teams responsible for the massive changes at the division, which was now responsible for $1.2 billion in contracts. Sixteen of these employees say that rather than figuring out how to navigate the complex system of providers and payments, Ahmed spent the first few months of 2022 reassigning, demoting or pushing out staffers with ties to the old guard.

In its statements to *Businessweek*, neither Adams's office nor the Department of Education, which wouldn't make Ahmed available for comment, responded to these points. The department focused instead on its assertion that de Blasio's creative budgeting was irresponsible and unsustainable.

The pre-K pullback fits with Adams's governing philosophy, which prioritizes shrinking the government's footprint while attempting to provide the same level of service. Since taking office, he's implemented three governmentwide cost-cutting programs, including reductions in funding for city libraries, universities and a program that delivers meals to seniors. As in these cases, the administration argues, the proposed 3-K cuts bring the program in line with actual demand. Adams has referred to the 3-K program's costs as a "real challenge."

During his early months, turnover at the division went well beyond the norm, according to the current and former employees. "You started to see this disbanding of departments," says Elizabeth Rodriguez-Perez, the early childhood division's former director of operations and special projects. "There was no focus on the day-to-day operations. They wanted to make the department smaller." The former employees say any perceived disloyalty to the new administration could lead to retaliation. One official was reassigned from the pre-K division's offices in Lower Manhattan to Jamaica, Queens, more than doubling his commute time to almost an hour and a half from his home in Harlem. Another, who lived in New Jersey, was assigned to a borough office in Queens. She took the hint and quit.

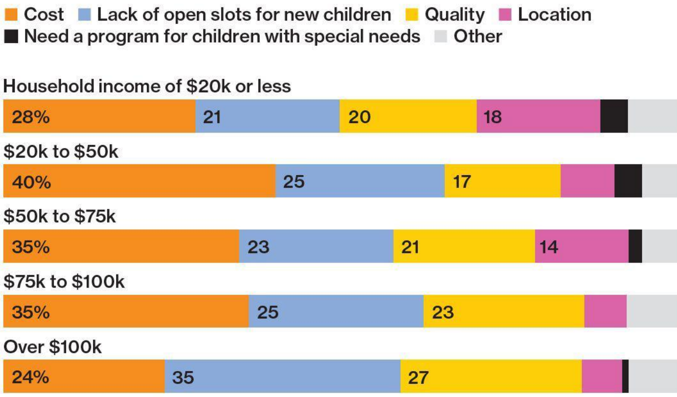
A few months in, it was clear there was a payment crisis, current and former employees say. "When I was leaving, I thought things would really start unraveling by the summer," says Kayla Khor, who managed strategy and policy at the division until April 2022. Institutional knowledge and expertise were being shoved out the door just as providers were getting anxious about whether they would be paid. The department wouldn't comment on the matter.

Since last year, providers have had to rely on whatever bridge funds they can find. University Settlement Society of New York, a nonprofit that the city owes $650,000 for pre-K services, has tapped credit lines and leaned on emergency Covid-19 relief funds, donors and contract advances. Sheltering Arms, a 200-year-old nonprofit that provided early childhood education and other services focused on underserved communities, took out a $2 million loan to stay afloat.

In November, the United Federation of Teachers, a union representing more than 100,000 New York City teachers and school aides, held a vote of no confidence for Ahmed. (She remains in her post.) That month, Banks announced his first response to the missing payments, creating what he called a "rapid response team" to troubleshoot complaints. By December, Sheltering Arms had closed its doors.

SINCE JULY, CHENG HAS BEEN WORKING OUT OF AN office at the Jacob Riis public-housing complex, right down the hall from the classrooms. The director at the site took another job, so Cheng has been stuck running it herself on top of overseeing the CPC's management of five other early childhood sites. It's not the only vacancy the nonprofit is dealing with, and its student-to-teacher ratios have suffered. (The education sector has also grappled with an exodus of teachers and other staff since the pandemic started.) This sort of thing can have

US parents' and guardians' primary reason for difficulty finding child care or an early childhood program



DATA: NATIONAL CENTER FOR EDUCATION STATISTICS 2016 SURVEY

dire consequences for early childhood education programs. In New York City, a classroom must have at least one teacher for every eight 3-year-olds or ten 4-year-olds. When teachers want to take vacation, or when they call in sick, Cheng or other staff either has to step in to substitute or close a site's doors for a day. Cheng, who started as a teacher at the CPC in 2002, says she had to close one facility twice in a week in April.

Another major factor contributing to the 3-K program's decline is that families aren't hearing about it. Early childhood programs require massive, sustained outreach every year, especially when the target demographic includes lots of families who are new to the city or weren't already dealing with the school system. Outreach teams from the Division of Early Childhood Education used to place ads, make calls and blanket neighborhoods to get the word out before enrollment periods. Those teams have been reassigned, essentially eliminating that work, according to five current and former employees. Styer, the spokesperson, said the Department of Education is doing its fair share of outreach and gathering better data on demand to fix mistakes from the de Blasio era.

In February the Adams administration created a new office for child care and early childhood education that reports directly to the mayor, outside the structure of the Department of Education. Its remit includes most of what the early childhood division used to do, such as coordinating planning across city agencies and helping families and providers navigate the system. (And, per Cockfield, it's also supposed to "lead strategy and foster innovation in partnership with stakeholders.") Anticipating the 2024 fiscal year, the mayor's office has announced plans to hire the consulting company Accenture Plc to assess how many families still want to enroll their kids in the city's pre-K program. A team of about 20 had been doing that in-house for the division under Wallack, but its numbers have dwindled to five.

Some parents say the department's outreach efforts have been wanting. Ryan Paulsen, a Harlem resident who teaches in New York's Westchester County and has a daughter turning 3, says he and his wife wouldn't have heard about the program if they weren't both teachers. They're anxious about securing a seat in their neighborhood—and about whether the program will still be around when their younger daughter, who was born last summer, needs it in a couple of years. "Why are we putting parents in this position?" Paulsen asks. "It's absolutely absurd that we're now discussing reducing 3-K."

THE CURRENT ADMINISTRATION'S CHANGES TO THE pre-K program have been dwarfed by the payment crisis and the budget battle. Adams's final budget proposal, released in April, would decrease the program's funding by $283 million annually. The mayor also said in April that he planned to cut the entire Department of Education by 3% on top of that. While this wouldn't necessarily mean imminent death for the pre-K program, it would add serious damage beyond what's already been done.

Adams and the New York City Council, the city's highest legislative body, must pass a budget by the end of June to keep the city running, but they're far from agreement on what the city's financial picture should look like, especially when it comes to child care. "The mayor's executive budget maintains or imposes even deeper cuts on social service agencies, libraries and programs like 3-K that working families depend on," the council's Progressive Caucus said in a statement earlier this year. Speaker Adrienne Adams (no relation) has positioned the council as united against cuts that undermine services and the functioning of the city government.

It's fair enough for the Adams administration to say that $300 million a year is a lot of money, but the mayor could find it in his $107 billion budget proposal if he wanted to. It's a matter of priorities: This year alone, New York City's police department is expected to spend more than $700 million on overtime pay, close to double its budget. There are state and federal coffers Adams can turn to as well, as de Blasio did with the 4-K expansion a decade ago.

Whatever happens with the budget, Sheltering Arms and other providers that fold aren't coming back. Those that survive may still opt out of the system, straining it further. But what's frustrating parents and operators the most is that the Adams administration can fix the problems it's created without a massive infusion of cash. The city, after all, has been stiffing providers on money it already appropriated for them, meaning its failures so far have been about execution. A March report from the city comptroller's office found that almost a quarter of the positions in the early childhood division were vacant.

A few weeks after *Businessweek* visited Cheng, the CPC received a visit from the state Office of Children and Family Services. The week after that, the organization received a $900,000 check from the city, followed by a second check for $700,000 in early April. Both payments cover its work for the fiscal year that ended last June. The city has offered no sense, however, of when it will make good on the past year of services rendered, and many other providers are still waiting on payments from the year before last. "I want to do this. I want to give back to my community," Cheng says. "They're abusing our love for the work that we do." Ⓑ

Bob Weave Post



Devin Haney is the new model of a boxing superstar—a flashy fighter who builds his audience far from the ring

By Joseph Bien-Kahn Photographs by Martina Albertazzi

"They sh*ted on me now it's gone cost them! 😤 " the caption reads, and we see the lightweight boxing champion of the world with a stack of $100 bills stretching from his left shoulder to his temple. He was in a jewelry store in New York City's Diamond District, wearing five bracelets, three rings, two watches and a diamond-encrusted DHP pendant. "DHP" stands for Devin Haney Promotions; at 19, the fighter became the youngest licensed promoter in US history. He's 24 now, and 29-0, and on May 20 he'll defend his title against Vasiliy Lomachenko at the MGM Grand's 16,800-seat Garden Arena in Las Vegas. The kid they call "The Dream" will earn $4 million plus a share of the pay-per-view take.

Across Interstate 15 from the MGM Grand on a dusty street called Business Lane sits Top Rank Boxing Gym, where Haney is training for the fight. Frank Stea, the gym's manager, takes me into a back room and offers me an energy drink. Stea, who's worked closely with Haney for a little more than a year, raves about his work ethic. But in boxing, that's only half the game. The sport's most transcendent showmen—Muhammad Ali, Sugar Ray Leonard, Floyd Mayweather Jr.—were champs whose salesmanship made them far bigger draws. "You can't really teach charisma and personality. Either you have it or you don't," Stea says. "Devin has that. He's flashy. He's good. And he's one of the types that a lot of people want to pay to see lose."

Haters come with the territory when you've got 2.2 million Instagram followers, a roster of luxury cars, oft-displayed eight-pack abs, an OnlyFans and a *TMZ*-chronicled former fling with the model Blac Chyna. Stories about the lucrative path from influencer to boxer have been widely told ever since Haney's friend Jake Paul, a YouTube megastar, entered the ring in 2018. Haney—along with fellow lightweights "King" Ryan Garcia (10.4 million Insta followers), Gervonta "Tank" Davis (5.6 million) and other fighters—is the inverse of Paul: the boxer-as-influencer. It makes sense, right? What does better on social media than jacked, wealthy, flashy and violent? Even Canelo Alvarez, who earned a reported $85 million in the ring in 2022, joined TikTok this month, amassing more than 238,000 followers in a week. "They have to be influencers as much as they are athletes," Stea says.

Boxing purists may cringe at this framing. "If you got this crazy brand, but then every time the bell rings you're embarrassing yourself, it doesn't matter how big your brand is," says Caleb Plant, a former super middleweight champion. "At some point you're only going to be a celebrity. You're not going to be a world champion boxer. Skills is what gets the bills paid." To date, each time the bell has rung, Haney has delivered.

At 3:30 p.m., Haney's towering head of security, who's also (aptly) named Tank, shouts, "Coming in hot!" and a Mercedes-Benz G-Wagen pulls right up to the gym's front door. Haney walks in, standing 5 feet 8 inches and close to the 135 pounds he'll have to weigh in at. His hair is buzzed on the sides and long and bleached on top, and he's wearing an Ali T-shirt. By now, some trainers, family members and friends, including NBA player Norman Powell, are on hand to grab a minute with the champ. Tank yells, "This is now a closed gym!" and tells everyone to put away their phone. They can't risk Lomachenko's camp getting any intel ahead of the fight. Of course, Haney's videographer and photographer continue to shoot; content never sleeps.

Haney gets his hands taped beside the ring as he prepares to spar. Everyone watches his every move. He's changed into a T-shirt with Tupac on the front. The back reads, "All Eyez on Me."

For generations, the heavyweight champion of the world really was world-famous. Pundits theorize that changing cultural appetites, or less charismatic fighters, or flashier alternatives, have sent boxing into its decades-long retreat since the heyday of Mike Tyson. As boxing historian Mike Silver explains, part of the problem is the sport's balkanization: Where once there were eight weight classes, each with one champ, now there are 17 with five belts apiece. Haney is the undisputed champ because he holds the WBC, WBA, IBF, WBO and the Ring titles. Most weight classes have two to five champions, and the dilution makes their significance tougher to grasp.

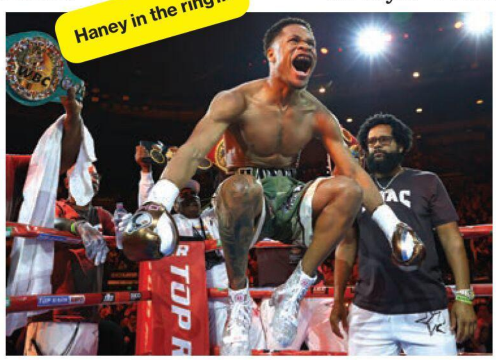
UFC's rise demonstrates that there's still plenty of appetite for violence. Top Rank, the kingmaking promotion company that Haney signed a co-promotion deal with last year, moved its fights from HBO to ESPN in 2017. Two lightweight fights in 2022 brought in more than 1.35 million network TV viewers, trailing only the NFL draft, college football games and MLB playoff tilts among the 18-49 demo on those days. ▶



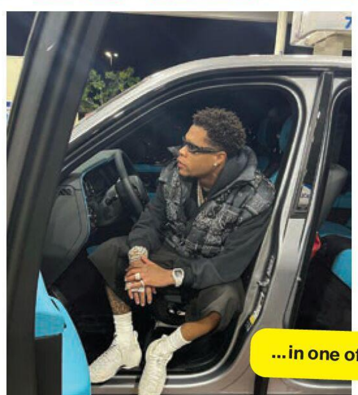
A Haney promotional car in Las Vegas on May 5

◀ And over the past few years, social media has served as a medium for Gen Z boxers to craft personas and capture a fresh, young audience. The hashtag #boxing has 92.6 billion global views on TikTok, 60% of them in the past 12 months. Top Rank and its boxers' social channels had 431 million views on TikTok and 487 million on Instagram in 2022, up 86% and 150% since 2021, respectively.

When Haney's sparring session ends, we sit in a messy office for an interview. Haney asks Stea for a towel to wipe the sweat from his brow. He's soft-spoken, grinning easily as he walks me along his path to the top of the lightweight class: a tiny kid from East Oakland, California, who moved to Las Vegas and started getting in fights at school; his father, Bill, taking him straight from the principal's office to a boxing gym when he was 7; coaches such as Floyd's uncle Roger Mayweather and former lightweight contender Derrick Harmon recognizing his natural talent. "From the start, I knew that I would be here one day," Haney says. "But it came a lot faster than what I imagined."


Haney in the ring ...

Haney worked with the Mayweathers and says his in- and out-of-the-ring style was modeled after a young Floyd Jr.—elusive with fast hands in the ring, stylish and quotable outside of it. He had a 130-8 amateur record and won two US Youth Championships as a teenager; at 17 he decided to turn professional rather than wait until he was 19 for a chance to box in the Olympics. But you have to be 18 to get a sanctioned pro bout in the US, so he went south, to Tijuana, to begin his career. Ten of his first 15 fights were in Mexico. He and his father filmed the fights themselves and posted them on YouTube. Haney says he didn't really make money from fighting—"a couple thousand here and there"—until his debut on Showtime for his 19th fight, in 2018.


... in one of his cars ...

Most boxers sign with a promoter who locks them in to a long-term deal; the promoter "builds" the fighter, in exchange for a contract that automatically extends if he gets a title shot. The Haneys tell me they were courted by Jay-Z's Roc Nation when Devin first began thinking about forgoing his amateur status. But instead of signing, at 19 he became his own promoter, backed by Bill's savings from a career in the music industry as an artists and repertoire (A&R) man. Less than two years later, in 2019, his undefeated record and expanding internet-native fan base earned him a multimillion-dollar co-promotional deal with Eddie Hearn's Matchroom Boxing USA Ltd. Haney's first fight with Matchbox was a seventh-round knockout of Antonio Moran, which moved his record to 22-0. After five more victories, the deal expired and Haney was a free agent again.


... and with his titles

Mayweather Jr. had shown the Haneys the power of peeling back the curtain. Before his 2007 title fight with Oscar De La Hoya, HBO aired a *24/7* all-access documentary, which led to the highest pay-per-view haul in boxing history. "When I signed my deal with Eddie Hearn, the first thing I did was I went shopping." Haney pauses and grins. "And I hired a camera crew."

His photographer started shooting when Haney had 380,000 Instagram followers. That number has grown sixfold. Two years later, Haney hired a full-time videographer for his YouTube channel. "I knew it'd be worth the money," he says. "I knew people wanted to see it." This has become the standard in the business. In anticipation of their title fight this past April, Davis posted a slickly edited video that got more than 900,000 likes on Instagram, while Garcia did a YouTube series in partnership with GMC & Co. "Now we see a lot of guys with photographers and videographers," Haney says. "But at that point, nobody was doing it."

Haney went hunting for bigger opportunities and didn't mind if he attracted hate along the way. In 2020, when an interviewer asked about what might happen if he were to fight Lomachenko, Haney kicked off an online stir by saying, "I can tell you this—I will never lose to a White boy in my life. I don't care what nobody got to say. Listen, can't no White boy beat me, I don't care, on any day of the week. I fight a White boy like 10 times, I'm gonna beat him 10 times."

In the gym, Haney says it's all part of the game. "It's like a roller coaster with the fans. There's moments they hate me, moments they love me. They hate me. They love me," he says, nodding. "As long as they're talking about me, as long as I keep winning, as long as I'm able to take care of my family, my loved ones, that's all that matters."

At the beginning of 2022, Lomachenko, who's also promoted by Top Rank, had ironed out the details to set up a title fight. But when the Ukrainian fighter enlisted in the war against Russia, the company's president, Todd duBoef, approached Haney about taking the shot instead. I ask Haney how Top Rank knew he wanted it. "I mean, I was saying it all over the internet," he says. "I was screaming on the internet

GETTY IMAGES (2). INSTAGRAM/REALDEVINHANEY

saying I deserved a shot. That I would go to Australia. I would sign up for whatever."

So that June, at 23, Haney got the chance boxers wait a lifetime for, beating George Kambosos Jr. in Australia to become the lightweight champion. He then defended his belts in a rematch back in Melbourne in October. Being loud online had secured him the title shot, but his boxing had made him the first unified lightweight champion since 1999.


duBoef

"Yes, get f---ing good and get f---ing big. Raise your profile"

"Everyone called boxing an old sport," duBoef tells me. "Bullshit! It wasn't an old sport, it was on an old platform."

The stepson of longtime Top Rank chief Bob Arum, duBoef now runs the organization remotely from his home in Aspen, Colorado. Arum is boxing's nonagenarian elder statesman, a former prosecutor in JFK's Justice Department who quit to promote Ali. He went on, along with his foil, Don King, to shape modern boxing.

DuBoef, by contrast, views himself as a change agent. He tells me about Top Rank's 37 million social followers and the sport's massive growth among Gen Z. He explains that boxing is "so appetizer delicious" on Instagram and TikTok. He says he regrets missing out on signing Garcia, a handsome fighter whose clips often go viral. Garcia's fighting didn't catch his eye, even after a friend sent duBoef a post of the boxer demolishing a heavy bag. "I should have said, 'Why is this guy that doesn't follow boxing sending me an Instagram of this kid Ryan Garcia?'" he says. "That should've been like, 'Yo, we're missing out on something here.'"

Garcia lost to Davis, getting KO'd by a liver shot in the seventh round. But duBoef remains in Garcia's corner, admiring how he leveraged a massive following into the bout with Davis, which sold out the T-Mobile Arena on the Vegas Strip. "If you can move an audience—if you have a passionate fan base—you can do almost anything in today's world," he says. "You can create a riot in DC. You can move products. You can change the music industry. You can make people buy a fight."

When I get Arum on the phone a week later, he also mentions Garcia. "Haney is a terrific fighter, but Ryan Garcia, who I don't think is a terrific fighter, has a great personality, and he established himself by having 9 million online followers," he says. "Or look at Jake Paul, who can barely fight. We distributed the pay-per-view for his fight with Tommy Fury, and it did tremendously! Why? Because he has this unbelievably large online presence." He adds, "Ali would drive everybody crazy. Ali would have probably 100 million followers!"

Last year, duBoef started offering every fighter on his roster access to the Top Rank Social Masterclass. He tells me more and more of his boxers are taking the course. "I'm not saying this is 100% the reason, but when the boxers—who are real fighters with real pedigrees and real ability—walk down the street and everyone says, like, 'When is KSI fighting?' or 'When is Jake Paul fighting?' the boxing industry is like, 'Who the f--- is he? He's just a YouTuber. How do you know about him?'" duBoef says. "And I always said, 'Listen, if a YouTuber can become a boxer, do you know how hard that is? It's much easier for a boxer to become a YouTuber. Let's set that up.'"

This is to say, social media is a cheat code to sell a fight. "If you have that marketability, and there's an audience for you, it's easy to make fights," duBoef says. "It's hard to get somebody to go fight a badass if there's no money in the pot. So, yes, get f---ing good and get f---ing big. Raise your profile."

On May 20, Lomachenko will get the title shot he passed up last year. The Ukrainian has the pedigree—featherweight, junior lightweight and lightweight titles, two gold medals and 396 amateur wins—and a good story. He credits his elite footwork to Ukrainian dance classes, and put it to a different kind of use last year, after he enlisted in the Belgorod Dnestrovsky Territorial Defense Battalion. But unlike the Davis-Garcia fight, which was packed with viral moments at weigh-ins and press conferences, Haney-Lomachenko has been relatively short on hype. Both Haney and Stea blame Lomachenko. "Lomachenko is in his 30s, so he's probably not social media savvy as much as Devin is. Devin lives for content. He knows how important it is," Stea says. "Loma? Not so much."

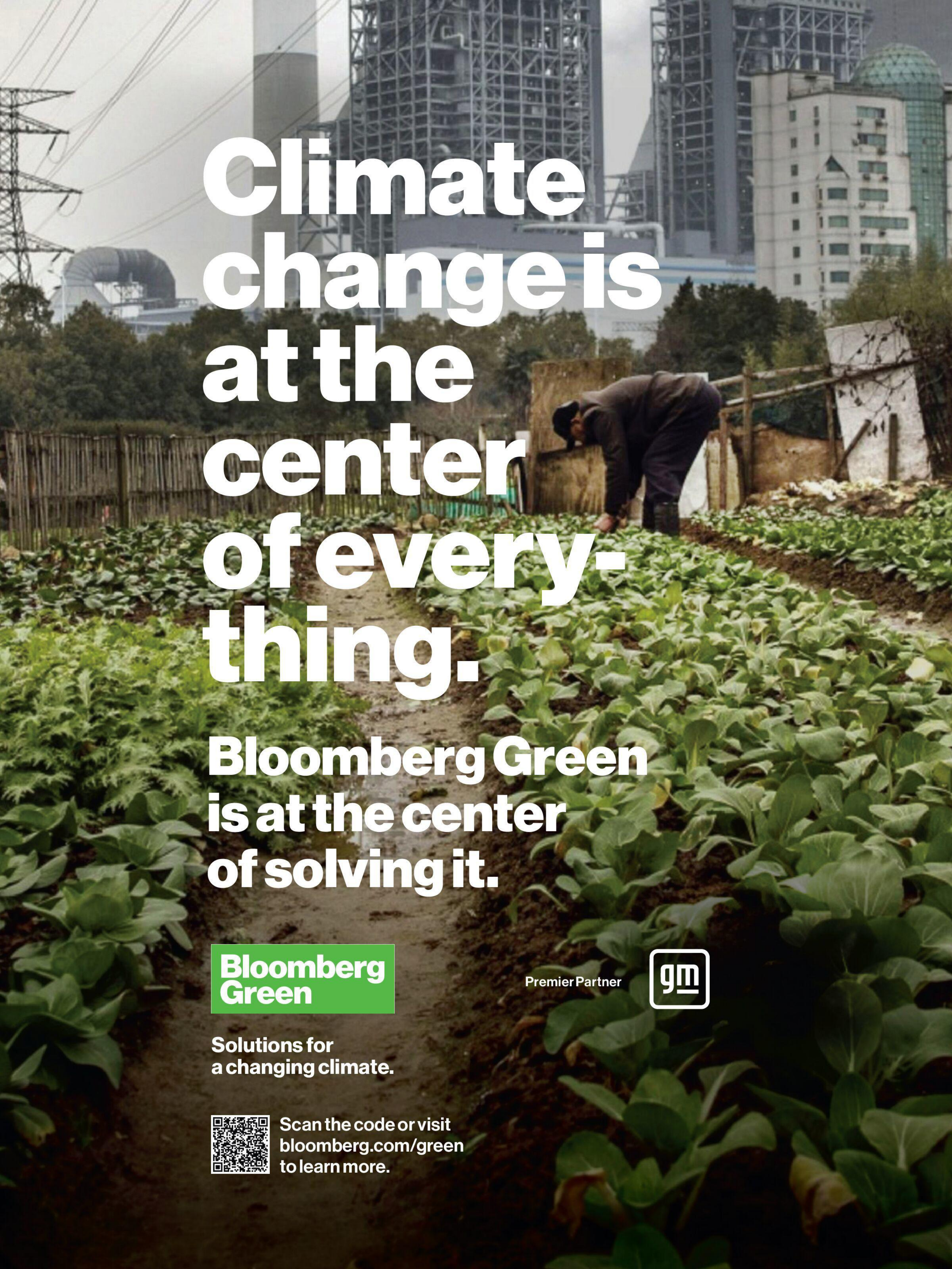
In a statement, Lomachenko said he's spent his time preparing for Haney. "May 20 is around the corner," he said. "I'm ready to fight. I hope he is, too."

This is the last of the three fights in Haney's contract with Top Rank. If he wins, he'll be free to sign his next deal with more leverage than ever, and Bill says they'd love to fight Davis next. Haney vs. Davis—and his massive fan base—would be a marquee spectacle.

In the messy office at the gym, Haney tells me he isn't looking past Lomachenko. I mention that Stea shared how annoyed he is by his rival's relatively quiet presence on social media. Lomachenko's last Instagram post is from April 19; the boxer sits beside a ring in black shorts and a black T-shirt, and the caption reads, "One month before… ." Haney, for his part, recently shared a meme showing himself eating the other man's head for dinner.

"I just don't think Lomachenko really cares to promote the fight. He knows he's gonna lose, so less people watching it is the best for him," Haney says, grinning. He puts up his fists as a photographer snaps a picture. "I want the world to see how great I am with this beatin' I'm gonna put on him. So of course I'm promoting. I want the world to watch." Ⓑ

PHOTOGRAPH BY MARTINA ALBERTAZZI



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PURSUITS

We're Still Tied Up With Neckties

Sales of the old-school accessory have bounced back as style-savvy shoppers experiment with new ways to wear them

By David Graver Photograph by Hannah Whitaker

At Hermès, necktie sales have returned to pre-pandemic levels

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Don't fret about crumbly corks

May 22, 2023

Edited by Chris Rovzar

Ties of every shape, size, color and pattern are back this spring—among the well-heeled attendees at New York's Metropolitan Opera, on the runways of Paris Fashion Week, on the steps of this month's Met Gala, on red carpets in Hollywood and in TikTok's outfits of the day. In a world that undoubtedly feels less formal, the return of the necktie is an unexpected twist.

Trendy brands are introducing new lines and inventive ideas for how to wear one—especially outside of the tie's traditional home, the workplace—and sales figures from historical maisons have surged. "We are very happy to be back to 2019 numbers," says Christophe Goineau, creative director of men's silk at Hermès. Having been part of the French design house for 35 years, Goineau has observed large societal shifts. "The business dropped during the pandemic," he says. "But we can see that some people want to be back in an office, and some people want to dress up again."

Hermès, which made its debut in 1837 as an equestrian harness workshop, in 1949 introduced ties at the request of customers in Cannes who'd been refused entry to the nearby casino because of its strict dress code. In the ensuing decades, it developed a key position in boardrooms and a hardy global consumer base devoted to its silk ties, which often incorporate vibrant pastels or tiny whimsical patterns, thanks to the work of in-house designers such as Henri d'Origny and Philippe Mouquet. Goineau notes that a commitment to manufacturing by hand also puts the maison in a unique position, as consumers returning to ties seem to have doubled-down on quality over quantity.

And Hermès isn't the only brand benefiting from professionals who are stepping out of a world framed by Zoom, where collared shirts were tucked into sweatpants, and increasingly being asked to be back in the office more days of the week. "Year on year, our entire market has grown by 20% here in the US, in units and in dollars," says Sam Stanley, vice president for North America at clothing retailer Charles Tyrwhitt Inc., known for its high-quality, well-priced dress shirts. Tie sales have increased for two years straight, though they remain down from 2019. Stanley is confident that sales volumes for its ties, which start at $49, will continue to rise. (Perhaps surprisingly, sales of pocket squares have also grown for two years.)

Although Stanley says he thinks that the number of people who wear a tie five days a week has decreased, there are still many who "wear a tie for the right meeting and people who still like to wear ties for a special event."

Both Stanley and Goineau attribute the resurgence to changes in the way the accessory is worn. Speaking with his design team, Stanley learned that it's been popular for a few years now to keep the thinner rear blade longer than the thicker front strip. It's a casual way to wear a tie as an outfit's exclamation point outside of formal occasions.

And Goineau says that even in the relatively stable world of Hermès—where the most inexpensive straight tie, at $240, presents a barrier to entry for younger people—old strictures that were almost universally accepted are being broken. "My


Ties from Charles Tyrwhitt, Dunhill and Percival

father taught me the rules of ties: You should never wear a dot tie with a striped shirt or a striped shirt with a striped tie. We were following that, because we thought it was important to adhere to classic elegance," he says. "Now everything has collapsed. If you want to wear striped ties with striped shirts, you can. If you want to wear a tie with a polo shirt, you can. The new generation has removed all the rules."

Beneath the abolition of these rules lies the reality that many people are no longer required to wear ties. "When I joined the company in the late '80s, it was impossible for me to imagine that one day I would not wear a tie. It was something that everybody had to do," Goineau says. "Now it is completely different. If I wear a tie, it's because I want to. It transformed from an obligation to a pleasure."

Ties have reappeared in the past year in high-fashion and pop culture moments—and not just on men like Will Anderson Jr., Lee Pace and the members of BTS. They adorned the necks of women on the runways of Alexander McQueen, Valentino, Christian Dior and others during Paris Fashion Week 2023. And women including Kristen Stewart, Pom Klementieff, Florence Pugh and Lizzy Caplan wore a range of ties to galas, premieres and after-parties during this year's awards season.





TIES: HANNAH WHITAKER FOR BLOOMBERG BUSINESSWEEK. REMAINING: GETTY IMAGES (6)

"We introduced ties in a real way in 2022 and have seen a lot of growth," says Alejandro Rhett, chief product officer at menswear designer Todd Snyder. "This was prompted by very strong growth in suiting and a return to proper dressing that we saw post-pandemic." Todd Snyder is experiencing a lot of success in the knit tie space, in particular.

"I think they're meaningful. I love my ties. I have certain ties for certain days and for certain meetings," says Blaine Minton, a managing director and wealth management adviser at Merrill, who lives in Delray Beach, Florida. Minton buys ties when he travels—often Hermès—and enjoys wearing something from Paris in Miami or something from Milan in Palm Beach. He's observed, however, that he's often the only person with a tie on in a room: "I think the tie is unfortunately losing a little of its luster in finance." But he adds, "I think if someone is wearing a tie, they're there to get the deal done. They're there to make some magic."

This sentiment is echoed by real estate broker Ryan Serhant, founder of Serhant LLC and star of Bravo's *Million Dollar Listing New York*. "A good suit becomes a great suit with the right tie," he says. "I am in the business of luxury, so wearing a suit and tie is still meaningful in my world." Serhant also prefers Hermès. "In my opinion, they tie the best, and they have unique colors. They're the accent—the pop that takes it up a notch."

Chris Gove, founder and creative director of Percival, in London's Hackney district, says, "The tie is a mainstay that is never going anywhere." The menswear brand, known for bringing modern flair to traditional staples, demonstrated this staying power when its knit polka dot tie was worn during the European Football Championship in 2021 by England manager Gareth Southgate. Sales boomed. Heritage brand Alfred Dunhill Ltd. is looking to connect its storied British history to this trendy movement: Its AW23 collection features a silk tie adorned with a very modern micro-geometric motif inspired by Dunhill's Rollagas lighter from the '70s.

Ties reflect the interests of the wearer and can reveal much about a personality. "Sometimes people come to Hermès and say that they want a classic tie, so we show them ones with the stirrups or saddles, and they say, 'No, no, no. The ones with little animals,'" Goineau says. "For them, the classic tie is not the equestrian one, but one with fantasy elements." Given new freedom to wear ties without following rigid sartorial rules, why wouldn't returning customers want to dream a little? B


Klementieff


Stewart


BTS


Pace


Anderson


Pugh



Lamborghini Gets Dirty

With the Sterrato, the Italian sports car maker blazes beyond the pavement. *By Hannah Elliott*

As a journalist, I'm paid to be skeptical. But sometimes, skepticism comes naturally. Like recently at Chuckwalla Valley Raceway, 180 miles east of Los Angeles. I was testing a vehicle that Lamborghini is billing as an off-road supercar, the $273,000 Huracán Sterrato.

A couple of things came to mind. First, Lamborghini has no record of competitive success in rugged realms, such as cross-country endurance races. In the 60 years since the Italian brand roared to life in Sant'Agata Bolognese, it hasn't participated in the rough-and-tumble international rallies that tend to bag bragging rights for Audi, BMW and Porsche.

Second, it feels like a cash grab. This is the final year of the current-generation Huracán, a popular Lamborghini street model that started production in 2014. It's not really a surprise executives were tempted into throwing a lift kit and some knobby wheels onto their bestselling coupe to squeeze a bigger margin out of the last few models. After all, that's a business strategy perfected by Porsche, with variants like the sand-trekking 911 Dakar. But Lamborghini is at its best when it's being true to its own iconoclastic nature—not copying others.

Nonetheless, I kept my heart and mind open as I slathered SPF 50 on my face and shoved my hair into a helmet. I was determined to give the Sterrato a fair shake.

A coupe with Brutalist overtones and a low seat position, the all-wheel-drive Sterrato comes with a 601-horsepower, V10 engine and 413 pound-feet of torque. With a wider stance than its Huracán siblings, an armory's worth of protective cladding, rally-cross headlights, a lifted nose and rear exhaust, and an elevated overall profile, it's the final model Lamborghini will ever introduce that's powered purely by internal combustion.

In the pit lane at Chuckwalla, I climbed into one painted like a can of Orange Crush. Lamborghini had converted the 2.3-mile track into a combination rally course that's one-third asphalt and two-thirds off-road terrain, including elevation changes, gravel, rocks, packed dirt and deep, soft soil. Each lap around the track would take me through both environments.

Mario Fasanetto, a Lamborghini development driver with 38 years of experience, told me the large duct on the roof would work as a snorkel directing clean air to the engine in case we got into dust. He said there were metal plates over the wheel well of the car's run-flat tires and along its undercarriage that would protect it like a breastplate if I bottomed out over rocks or fishtailed along heavy scrub. An extra 44 millimeters (1.7 inches) of height over the wheels would allow me to hurdle over boulders, for a total of 162mm of clearance. A new "Rally" drive mode would muzzle the safety systems that Huracáns ordinarily come with, like electronic stability control, so the car could drift and dance across deep dirt like John Travolta in *Saturday Night Fever*.

I raised an eyebrow. Is all of that armor really necessary?

And then I drove it. The answer, in a word, is: *yes*. The

Martian terrain I encountered the second I slid off the concrete demanded it. I pressed the gas and felt the car sink into the dirt before surging forward, then I quickly spun the wheel to the left, following a tiny black sign with an arrow in the direction I should take. Fasanetto used the term “off-road track” loosely; I couldn’t discern any obvious course cut into the terrain as I whipped around dead trees and cacti.

I was dumbfounded by how much I could thrash the car without lifting my foot off the gas. Fasanetto, with a silver coiffure and biceps bulging out of his polo shirt, sat in the passenger seat barking commands. *Turn in now! Gas, gas, gas! Go!*

I’ve always considered the standard Huracán exemplary, with scalpel-precise steering and a raw power that forces you back into your seat like a punch to the shoulder. But with only 5 inches of clearance, the carbon-fiber front splitter inevitably scratches at the slightest incline, and the wheels cost thousands of dollars to replace should you scrape them—so driving the street-going model engenders a certain level of anxiety. Even if the repair costs weren’t a deterrent, the time spent replacing damaged components would annoy me, if I owned one.

The Sterrato, on the other hand, liberates you from such concerns. Under the sun at Chuckwalla, dodging the scampering lizards by the same name, I cruised across the loose earth, shifting from second to third to fourth gear, then dove and dipped around corners as I brushed the carbon-ceramic brakes. I was driving this Lambo rougher than I’d driven trucks from Rivian, harder than I’ve driven Porsches on snow and Land Rovers on sand. It took the abuse so well, I felt as if we might just go ahead and take the back roads all the way to Vegas. I scraped the bottom of the car multiple times. It didn’t matter.

Fasanetto seemed pleased. He told me the Sterrato has modified torque distribution and adjusted stability control calibrations for extra power with uneven surfaces. Lamborghini increased the distance the wheels can travel up and down—25% more than the Huracán in the front, 35% more in rear—and widened its stance to help it navigate snow, ice and mud, and it’ll still jump to 62 mph in 3.4 seconds, just 0.2 seconds slower than the standard Huracán and a fraction of a second quicker than Porsche’s off-roader, the 911 Dakar.

I pulled back onto the paved portion of track after my excursion off-piste and put his claim to the test, reaching for seventh gear as I inched toward the car’s 161 mph top speed. Blazing down the backstretch, snapped back into race-track velocity, I almost forgot the off-road chaos. But when I stepped out of the car, the thick dust covering that soda can of a paint job brought it all back.

As for my skepticism? By the end of the day, after treating the Lamborghini Huracán Sterrato like my personal dune buggy, I’d dropped any doubts about its raison d’être somewhere back in the sagebrush. I just wanted another ride. Ⓑ



COURTESY LAMBORGHINI

Leading Ledges

These striking shelves play more than mere supporting roles

By Monica Khemsurov

It holds your most precious possessions. Why don't you pay the humble wall shelf more attention? Whether you're rethinking a room or reorganizing your curio collection, here are eight eye-catching options to level up your design game.

2





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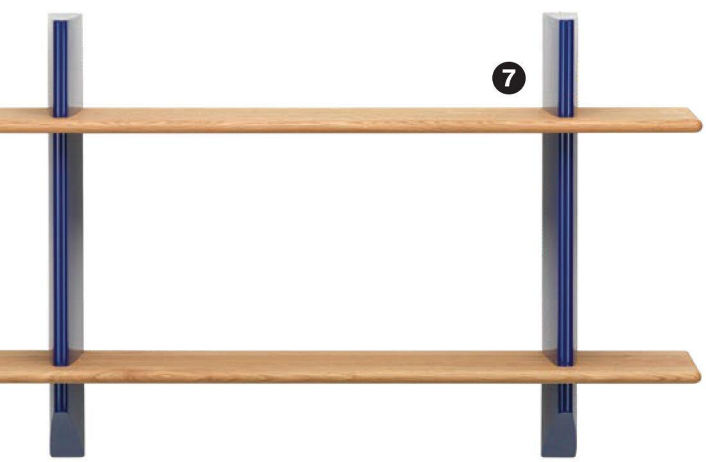




COURTESY COMPANIES









1 FERM BON
A modern take on the shadow-box shelves your parents bought to show off trinkets in the 1970s, the Bon is a simple, divided wooden box made of oak that can be hung horizontally or vertically, its backing adding extra visual framing to whatever books or objects you stage inside. *From $335; fermliving.us*

2 MENU EPOCH
Scandinavian simplicity belies a surprising functional twist in this oak-veneer design by Danish designer Nina Bruun: Mount the shallow side up to display your favorite art objects or framed photos. Or flip it to use the deeper side for storage. *From $200; menudesignshop.com*

3 BLOOPY DOOPY
Most of New York artist Margo DeMarco's objects have a silly side—eyeball doorknobs, hand-shaped chip clips, a table held up by skeletons—but the craftsmanship and exposed wood grain of her undulating Bloopy Doopy shelves somehow elevate them into something more sophisticated. *$2,000; fortmakers.com*

4 BREUER NOVIEMBRE
Part of a series of wooden furniture and sculptures inspired by artist Constantin Brancusi's work, the Noviembre by Mexican designer Joel Escalona consists of two long, solid-oak shelves connected by three circular forms that add visual beauty to both the unit and the items you put on it. *$1,395; dwr.com*

5 ETHNICRAFT PI
The Pi reimagines the classic metal-bracket, wall-mounted shelf construction with supports that are carved entirely from solid mahogany, just like its shelves. Both have rounded edges that give it a warm feel that eschews the industrial. *$589; beambk.com*

6 HAY KORPUS
The Korpus, by Norwegian designer Andreas Bergsaker, takes advantage of its material: Sheet aluminum is lightweight and easy to mount yet also incredibly strong. Not only can you place objects on top of it, but you can also hang coats or keys from it, on a set of hooks concealed inside the solid-looking yet hollow base. *From $99; us.hay.com*

7 VITRA RAYONNAGE MURAL
The solid-oak planes of this bookshelf—designed for a French university in 1936 by Jean Prouvé—slot into two blue bent-metal wall brackets that echo the legs of the designer's famed 1934 Standard chair. They're also available in three other elegantly subdued colors that recur throughout Prouvé's body of work. *$2,425; vitra.com*

8 PLUMP
The playful, light-bending Plump by New York designer Ian Alistair Cochran looks like a giant Jolly Rancher, especially in such bright candy colors as this apple green. But the shelf, which has elements that slot together without any distracting hardware or glue, can also be custom-ordered in virtually any hue. *$6,250; tulestefactory.com*

California's New Cabernet

Why Paso Robles, not Napa or Sonoma, is America's most exciting wine region right now

By Elin McCoy

If you're on an all-out quest to make great cabernet, you might aim for Napa or Bordeaux. Not Daniel Daou. After a decade-long global search to find the right plot of land, the aspiring winemaker discovered the ideal combo of soil and climate in Paso Robles, an American Viticultural Area of oak-studded hills and winding back roads three hours south of San Francisco. "Paso," he says, "has a climate between Pauillac and Oakville. It was my destiny."

Once sleepy and overlooked, the area now has energy and a definite wow factor. It's California's shiny new wine hot spot, and not just for cabernet. It's where to go for top Rhône-style wines, and tourism is booming.

Brothers Georges and Daniel Daou helped push Paso into the spotlight with their wines and compelling story: They're Lebanese refugees who grew up in France and made a fortune in California tech while still in their 30s. But Daniel wanted to be a farmer, not a computer engineer, and when he tasted a 1986 Château Léoville Las Cases, he became convinced he was meant to be a winemaker. He fermented wine in his garage, and when the brothers had the money to buy a vineyard, they found their perfect terroir in Paso Robles (PASS-oh ROH-buhlz). It's "European soil" with altitude, as Daniel likes to say.

The duo wasn't the first to see Paso as ideal cabernet land. In the 1970s, legendary Napa winemaker André Tchelistcheff advised Dr. Stanley Hoffman to plant vines in the hills of the Adelaida District, on a mountain 14 miles from the Pacific. The Daou brothers bought much of Hoffman's ranch at the end of 2007 and started planting more grapes and pumping out big, rich, high-end Bordeaux-style blends that rival some of Napa's best. They built the impressive Daou Family Estate winery in the style of a Moorish castle with gardens, tasting patios with sweeping vistas and a restaurant at 2,200 feet. An ambitious expansion of Patrimony Estate is next. (Their $265 collectible 2019 Patrimony cabernet sauvignon is Daou's idea of a Paso first growth.)

The heart of winemaking on California's Central Coast, Paso Robles now boasts more than 200 wineries parceled out across 11 subregions that were approved in 2014, all with different soils and rainfall patterns, at elevations from 700 feet to 2,400 feet. The grape varieties are mostly red, with cabernet accounting for almost 50%; the other 50% includes more than 60 grapes, the most important of which are Rhône varieties such as syrah. But what makes the region special is its day-to-night temperature swings. At 35F to 50F, they're greater than any other appellation in California. Warm days encourage sugar to develop in the grapes, and cold nights help them retain acidity and preserve aromas. The result? Bright, balanced, crisp wines.

So far, the appellation's cool west side (west of Highway 101), especially the Adelaida, Templeton Gap and Willow Creek districts, has drawn the best producers. "The rocky limestone soils give minerality and freshness," says Daniel, who loves to talk dirt. "The vines lick the water out of rocks." And land is available. The best west-side lots go for $50,000 to $120,000 an acre—about a third of the cost of land in Napa.

Last May, Duckhorn Portfolio Inc. acquired a ranch with 265 acres of top cabernet sauvignon, which feeds its Decoy blend and an all-Paso cabernet, Postmark, widely available at $25. Giant E. & J. Gallo got in on the action in November, purchasing the award-winning Denner Vineyards. In 2021 powerhouse Constellation Brands Inc. snapped up Booker Vineyard from co-founder and top winemaker Eric Jensen, who continues to make the wines.

At Tin City, a bustling warehouse district in the city of Paso Robles, a collection of 27 tiny producers showcases a flourishing experimental wine scene. Look for delicious 2019s and promising 2021s; 2020s are hit and miss, stressed as the state was from the August wildfires. B

WHAT TO TRY



2021 Field Recordings Fiction Red ($22)
Although the winery is known for organic, noninterventionist pét-nats, this "taste-of-Paso" blend (10 red grapes, 10 vineyards), with wild spicy cherry and licorice flavors, is a winner with barbecue.



2019 Tablas Creek Esprit de Tablas Blanc ($50)
Paso's whites are underrated, and one of my favorites is a Tablas Creek Vineyard signature. Powerful and rich, it boasts tropical fruit flavors and a gorgeous silky texture.



2018 L'Aventure Optimus Paso Robles Red ($65)
French winemaker Stephan Asseo makes fine use of Willow Creek's cool ocean microclimate and limestone soil for this intense cabernet sauvignon, syrah and petite sirah blend. It's a great introduction to his classy, restrained, mineral style.



2019 Booker Vineyard Oublié Red ($75)
This hearty red blend of grenache, mourvèdre and syrah is especially food-friendly. Think lavender and pepper aromas and bright, lively raspberry fruit with a burst of freshness.



2019 Daou Estate Soul of a Lion ($150)
Cabernet sauvignon, cabernet franc and petit verdot join forces in a big, bold and powerful blend, with a bright, lifted character and plenty of spiciness.

COURTESY COMPANIES

Old Joy

Is it finally time to open that 1959 Château Latour? You're going to want the Durand

By Elin McCoy   Photograph by Janelle Jones



Mature, pricey wines are a treat to taste but stressful to open: Will the inevitably fragile corks crumble? At a recent 23-vintage retrospective of Bordeaux Château Troplong Mondot, Managing Director Aymeric de Gironde pulled corks with the $135 Durand corkscrew to ensure the answer would be no. As a wine ages, so does the cork, often disintegrating or drying out even if bottles are perfectly stored. Fishing out floating bits is a time-consuming chore, and filtering can affect the taste, not for the better. This scenario inspired Atlanta wine collector Mark Taylor to invent the Durand in 2007. Its patented design has been the standard-bearer for precise pulling of even the most compromised corks ever since.

THE COMPETITION

- Westmark's $23 Monopol Ah-So two-pronged cork puller is sturdy, inexpensive and works well—but not always. Without a screw to hold the cork in place, it sometimes pushes porous aged ones down into the bottle.
- You probably already have Pulltap's Classic 500 corkscrew ($25), or a version of it, in your kitchen drawer. Its double hinge adds leverage control, but the pulling action through an old cork can rip or break it.
- The $160 Coravin Timeless Three+ preservation system obviates the need to remove the cork at all. A thin hollow needle plunges through it to siphon wine into a glass. That's great for single servings, but not if you want to share a bottle with friends.

THE CASE

The no-frills Durand, named to honor sommelier Yves Durand, is tailored to perform a single task effortlessly—that is, popping old bottles. It isn't a fast, all-purpose wine opener. Made from sturdy high-quality steel, its two-part design combines the old-fashioned "worm" of a standard corkscrew and a handle with two prongs that resembles an Ah-So. A YouTube video shows the method: The screw and stabilizer bar hold the cork steady while the second part's metal blades slide between the cork and the glass, eliminating side tension. Lock the two together; then, while slowly turning the unit, a gentle, smooth pull will extract the cork in one clean piece. I've never seen it fail. *$135; thedurand.com*

Hey Google, Use AI to Sell Stuff

By Alex Webb

Google has spent the past 25 years teaching us to speak its idiom. If you barked at your spouse “weather Des Moines tomorrow,” you’d be unlikely to elicit anything resembling a helpful response. Yet that’s the way we’ve learned to engage with Google Search. Now, with the advent of a host of artificial intelligence technologies, the search giant wants to teach the world a whole new way of talking to computers.



At Google I/O—the company’s annual developer conference, held on May 10 near its headquarters in Mountain View, California—we caught our first glimpse of its vision for integrating generative AI into search. It’s a big deal, not least because Microsoft Corp. has painted a target on Google’s back. Through its investment in ChatGPT creator OpenAI, Microsoft has been integrating AI tools into its own search engine, Bing. For the first time in two decades, it’s started to look as though there might be a meaningful challenge to Google’s $163 billion search business.

More than that, it was unclear what a generative AI-led approach to search would mean for Google’s ability to serve ads, from which that business derives all its revenue. After all, it’s the imperfection of search that creates space for advertisements: You’re served a diverse menu of choices. If you received the perfect result each time, there would be less scope for Google to make money by giving you results someone else might have paid for.

Which is what made the 12 minutes of I/O dedicated to search so significant. Very quickly, Cathy Edwards, a vice president for engineering, was showing that generative AI can help you buy stuff—in her example, a commuter bike. The prompt she demonstrated was “good bike for a 5-mile commute with hills.” The idiom might have sounded similar to the way we’d typically engage with Google, but it’s got a level of complexity with which we’d never typically challenge the search engine. The experimental product returned a few possibilities and potential follow-up questions.

Ostensibly, this was just another example of how AI, paired with Google’s vast data sets, can create a pretty cool customer experience. But Google has been trying to crack e-commerce for years: A sizable proportion of online shopping searches start at Amazon, completely circumventing Google. It’s been one of the company’s real weaknesses. Now it’s signaling that AI, where Amazon.com Inc. appears to lag Google technologically, offers it a chance to catch up. While the conversation focuses on Google’s battle with Microsoft, it heralds an impending fight with Amazon, too.

For all of AI’s amazing potential, the companies leading the charge technologically have the ability to set the parameters for how we engage with it, to dictate the nature of the conversation. And, as with the last generation of the web, it looks like they really want to use it to sell us more stuff. Ⓑ

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